Sexual Communication Among Young Adult Heterosexual Latinos

by

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Dedication

To my loving family

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Abstract

Background: Young adult Latinos are disproportionately affected by unintended consequences of sex (e.g., unplanned pregnancy, sexually transmitted infections, and HIV). An important component in efforts to prevent these unintended consequences is sexual communication between sexual partners. Understanding how sexual communication influences sexual behavior is warranted, as well as understanding the predictors of sexual communication among Latinos and their sexual partners.

Objective: To examine how sexual communication influences sexual behavior among young adult, heterosexual Latinos in sexually active relationships; and—drawing from Wingood's Theory of Gender and Power—examine contextual (socioeconomic factors, relationship power, social norms, affective attachment) and intrapersonal (attitudes towards sexual communication) factors and their relationship with sexual communication. Gender differences within relationships were also evaluated.

Methods: In this descriptive, exploratory study, self-identified Latinos (*N* = 220, men = 109) ages 18 – 30 and in current heterosexual relationships were recruited from urban areas in Southeast Michigan. Self-administered questionnaires were used to evaluate sexual communication, sexual behavior, socioeconomic factors, relationship power, social norms, and affective

attachment. Regression analyses were used to address the objectives of the study.

Results: Theoretical relationships proposed by the modified Theory of Gender and Power were supported by the data. Among women, sexual health communication was positively associated with consistent condom use (*OR* = 2.07, $p < .05$) and negatively associated with having concurrent sex partners (*OR* = .19, $p < .01$). However, among men sexual communication was not associated with sexual behavior. For men and women, nonverbal sexual communication was negatively associated with condom use at last sex (*OR* = .46, $p < .01$). Sexual communication variables among men and women were most explained by intrapersonal factors. Intrapersonal factors predicted sexual health ($R^2 = .15$, $p < .01$), sexual satisfaction ($R^2 = .36$, $p < .01$), and nonverbal sexual communication ($R^2 = .41$, $p < .01$).

Conclusion: Among young adult Latinos, sexual communication is generally predictive of sexual behavior. However, the relationship with sexual behavior varies by type of sexual communication. Acknowledging that sexual communication may serve different purposes within couples may facilitate strategies to help couples develop and maintain safe and satisfying sexual behaviors.

Chapter 1

Introduction

This chapter highlights the importance of sexual communication among young adult Latinos as it pertains to sexual behavior. The purpose of the research study is also addressed, followed by a description of the theoretical framework used to guide the study. Finally, the specific aims tested in this study are described.

One important component in efforts to prevent unintended consequences of sex is sexual communication (described in the literature primarily as verbal communication about various aspects of sex) between sexual partners. Sexual communication between sexual partners has been found to be positively associated with safer sex practices—particularly condom use (Rojas-Guyler, Ellis, & Sanders, 2005; Widman, Welsh, McNulty, & Little, 2006). More specifically, sexual communication that addresses partner's sexual history and condom use has been demonstrated to have positive effects on condom use between sexual partners (Noar, Carlyle, & Cole, 2006).

The success of sexual communication, however, can be influenced by multiple social and relationship factors. Sexual communication among young adult Latinos is important to explore because young adult Latinos continue to be disproportionately affected by unintended consequences of sex. Compared to non-Hispanic Whites, Latinos have higher rates of sexually transmitted infections

(Centers for Disease Control and Prevention [CDC], 2011) and HIV infection (CDC, 2010). Compared to non-Hispanic White women, the rate of unplanned pregnancy among Latinas is almost double that of non-Hispanic White women (The National Campaign, 2008, 2009). Given these disproportionate health outcomes, understanding sexual communication among Latino couples is an important prerequisite for the development of effective interventions for sexual health promotion and sexual health risk reduction.

Research on sexual communication specific to young adult Latinos is scarce. Among the few studies that have examined the influence of sexual communication on condom use among Latinos, the findings are equivocal. Some studies were able to demonstrate a relationship between sexual communication and condom use (Ibanez, Marin, Villareal, & Gomez, 2005; Rickman et al.,1994; Rojas-Guyler et al., 2005) while other studies found no relationship (Harvey et al., 2006; Moore, Harrison, Kay, Deren, & Doll,1995). Several of these studies included participants who were in long-term relationships, cohabitating, or married; however, none of the studies explored how these types of relationships—or the interpersonal dynamics within the relationships—influenced sexual communication. A couple-focused approach should be considered in the exploration of sexual communication since relationship dynamics (i.e., relationship commitment, codependency, and trust) have the potential to influence both sexual communication and sexual behavior. The measurement of sexual communication among young adult Latinos also needs further exploration. Current measures have emphasized sexual history and comfort with sexual

communication. However, in order to understand how sexual communication may influence sexual behavior, it is also important to consider the context in which young adult Latinos communicate about sex, the manner of communication (verbal versus nonverbal), as well as to examine whether what is communicated has implications for their sex behaviors. These components of sexual communication and their significance in predicting sexual behavior have not been well explored, and they are addressed more directly in the current study.

Overall, research is needed to further explore the context, content, and meaning of sexual communication among young adult, heterosexual Latino couples. Significant knowledge gaps remain in regards to how relationship dynamics within young adult Latino couples influence sexual communication and ultimately sexual behavior. Given that relationship dynamics exist within a socio-cultural context, the factors of financial resources, relationship power, social norms, and affective attachments will be examined in this dissertation to more fully enhance our understanding of sexual communication and sexual behavior among young adult Latinos.

Purpose

The purpose of this study is to examine how sexual communication influences sexual behavior among young adult, heterosexual Latino couples. As part of this study, contextual (socioeconomic factors, relationship power, social norms, and affective attachment) and intrapersonal (attitudes towards sexual communication) factors and their relationship with sexual communication are also

examined. Results from this study address the gap in research on sexual communication among young adult Latinos and serve as a foundation for HIV prevention and intervention research geared towards increasing sexual communication in this target population. The long-term goal for this program of research is to decrease sexual risk behaviors and unintended consequences of sex (HIV and STI infection and unplanned pregnancy) among young adult Latinos.

Background and Significance

Latinos in the United States continue to be disproportionately affected by unplanned pregnancy (The National Campaign, 2008, 2009); sexually transmitted infections (STI) (CDC, 2011a); and HIV/AIDS (CDC, 2011b). Among Latina women, 54% of the pregnancies are unplanned compared to 40% in non-Hispanic White women. This higher rate of unintended pregnancy is also associated with Latina women experiencing higher rates of abortion (Cohen, 2008). Regarding STIs, the rates of gonorrhea, syphilis, and chlamydia are 2 and 3 times higher than rates of infection among whites (CDC, 2011a). Furthermore rates of infection for all of these STIs have increased from 2009 to 2010.

The most concerning unintended consequence of sex is HIV infection. The highest prevalence of persons newly infected with HIV among Latino men and women are in the 13-29 age group (CDC, 2008a). Heterosexual contact was the major mode of transmission for 83% of new infections in Latina women and 13% among Latino men (CDC, 2008b). Latinas often become infected from high-risk male sexual partners who are IV drug users, and/ or have multiple partners and

unprotected sex. While Latino men are also increasingly becoming infected via heterosexual sex, the rate of infection via homosexual contact remains a dominant mode of HIV transmission among Latino men. In 2009, Latino gay and bisexual men aged 13 – 29 years accounted for 45% of new infections within this specific population (CDC, 2011c). Bisexual men, or men that have sex with both men and women, in recent years have been considered by public health researchers as a potential "bridge population" (Siegel, Schrimshaw, Lekas, & Parsons, 2008). Men who have unprotected sex with an infected male partner, and then have sex with women, may contribute to the transfer of HIV to women. This complex phenomenon of a bridge population further highlights the importance of attention to sexual communication within heterosexual relationships. The prevalence of HIV, STIs, and unplanned pregnancy in this population suggests that Latinos are not consistently taking measures to protect themselves from infection or unintended pregnancy.

In addition to the sexual health risks impacting Latinos, the demographic importance of Latinos makes them a likely focus for this study. Latinos are the fastest growing and largest ethnic minority group in the United States, comprising approximately 16% of the population (U.S. Census Bureau, 2010) and accounting for almost half of the nation's population growth between 2000 and 2006. Latinos also tend to be younger than the general population with almost 80% of Latinos under the age of 45 (Fry, 2008). The presence of such a young population at risk for HIV and STI infection warrants proactive attention in regards to interventions to promote safer sex behaviors and curb a growing

health epidemic which can have widespread health and social implications for Latino individuals, their families, and communities.

The research confirms that sexual communication is an important contributor of safer sex behaviors. However, there is a need to move beyond focusing only on the individual (NLAAN, 2008). To date, the public health literature on sexual communication among Latinos reflects primarily intrapersonal factors such as comfort with sexual communication (Deardorff, Tschann, & Flores, 2008; Gomez, Hernandez, & Faigeles, 1999; Melendez, Hoffman, Exner, Leu, & Ehrhardt, 2003; Soler, Quadagno, Sly, Riehman, Eberstein, & Harrison, 2000); self-efficacy for condom negotiation (Noar, Morokoff, & Harlow, 2004; Melendez et al., 2003; Soler et al., 2000); and perceived risk for infection (Catania et al., 1992; Moore, Harrison, Kay, Deren, & Doll, 1995; Soler et al.,2000; van der straten, Catania, & Pollack, 1998). Although these factors are pertinent to sexual communication, a couple-focused approach to evaluate sexual communication among young adult Latinos, using the suggested theoretical framework (see Figure 1), can facilitate a better understanding of the contexts in which sexual communication occurs among Latino couples. Findings from this study can help inform intervention projects geared towards the improvement of sexual communication among young adult Latinos and ultimately decrease reproductive health disparities.

Theoretical Framework

The organizing framework for this study was informed by an expanded version of the theory of gender and power (TGP) (Wingood, 2003) and previous

research among young adult Latinos (Alvarez, unpublished). The TGP has been used to explore sexual behavior and HIV/AIDS risk, and to inform risk reduction interventions among heterosexual men (Lesser, Verdugo, Koniak-Griffin, Tello, Kappos, & Cumberland, 2005; Noel-Thomas, 2010) and women (Pulerwitz, Amaro, De Jong, Gortmaker, & Rudd, 2002; Raiford, Wingood, & DiClemente, 2007; St Lawrence, Wilson, Eldridge, Brasfield, & O'Bannon, 2001;Teitelman, Tennille, Bohinski, Jemmott, & Jemmott, 2011) .

The basic tenets of the TGP propose that the interdependent categories of sexual division of labor, sexual division of power, and *cathexis* create social and economic environments that predispose women to adverse health outcomes. Notably, sexual division of labor creates economic inequalities between men and women; sexual division of power acknowledges gender power inequities within a relationship; and *cathexis* (affective attachments and social norms) accounts for the emotional investment one has in a relationship as well as the social norms men and women are expected to follow (Wingood & DiClemente, 2000).

In this study, sexual communication is the main outcome of interest—particularly as it relates to sexual behavior between couples (see Figure 1). The theoretical framework in Figure 1 proposes that the socio-cultural factors of employment status, level of education, economic stress, relationship power, social norms, and affective attachment influence sexual behaviors through sexual communication between couples. In addition, results from a previous study (Alvarez, unpublished) support the inclusion of factors more proximal to sexual communication (i.e., attitudes and subjective norms towards verbal and

nonverbal sexual communication, perceived partner approval about sexual communication, and behavioral beliefs) which are suggested mediators of the relationships between the socioeconomic, socio-cultural, and interpersonal variables and sexual communication.

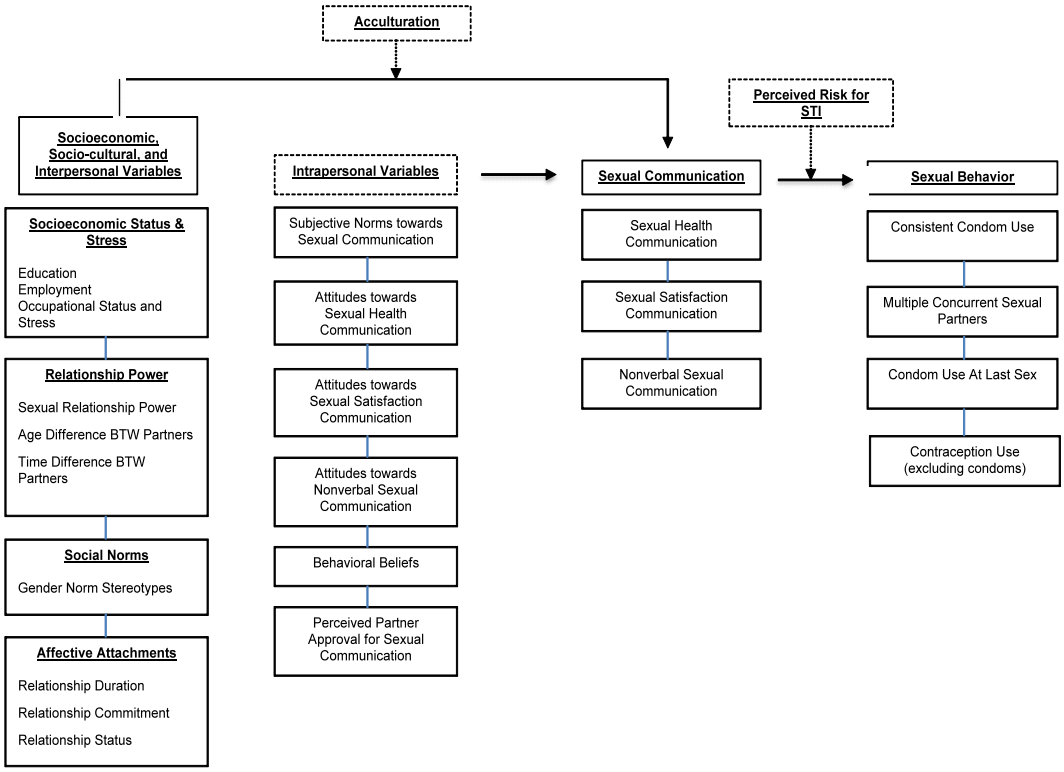

Figure 1. Theoretical framework.

Sexual communication in this study refers to how one relays to his/her partner information about contraception, condom use, sexual history, and matters of sexual satisfaction and pleasure. The measures for sexual communication address several components. These components include verbal communication about sexual health, verbal communication about sexual satisfaction, and nonverbal communication about sexual satisfaction.

Sexual behavior refers to sexual practices that have sexual health implications regarding risk for or prevention of unintended pregnancy, as well as sexually transmitted infections and disease. These behaviors include condom use practices, use of contraception (not including condoms), and having multiple concurrent sexual partners.

The following sections describe the components of the theoretical framework in more detail.

Socioeconomic, Socio-cultural, and Interpersonal Variables

Socioeconomic status and stress. Socioeconomic status and stress is conceptualized as the socio-demographic factors and perceptions of negative differential treatment as a result of being Latino. The TGP domain of sexual division of labor proposes that women of a low-income status and low educational attainment are at increased risk for adverse health outcomes (Wingood et al., 2000). Limited financial resources may impede women's access to health care resources, increase their reliance on male partners for economic support, and create situations in which safe sex is not a priority (Marin, 2003; Ortiz-Torres, Serrano-Garcia, & Torres-Burgos, 2000; Wingood, 2003).

While men often assume the dominant role in heterosexual relationships, they, too, are at increased risk for adverse health outcomes due to limited economic resources and opportunity. An ethnography on male sex workers in the Dominican Republic illustrated how decreased governmental support for industries (such as agriculture) that provided men with socially acceptable means to support their families was associated with men's entry into the informalized

workforce such as the sex-industry (Padilla et al., 2008). Similar realities have been noted in the U.S. among migrant day laborers (Organista & Ehrlich, 2008). Lesser and colleagues (2001) conducted a study among young adult Latino males and described how Latino males in low socio-economic strata resort to high-risk lifestyles for survival and consequently engage in high risk sexual-behaviors to find a sense of belonging.

Education, income, and employment status are often intertwined, and among Latinos, largely associated with acculturation. Less acculturated Latinos, in comparison to highly acculturated Latinos, tend to have less than a high school education, have low paying employment, and experience more discrimination (Davila, Mora, & Hales, 2007). All these factors have been found to result in economic stress (Cervantes, Padilla, & Salgado de Snyder, 1991). Studies that have explored sexual communication have used mainly demographic information to describe the respective sample population but not to explore the influence of socioeconomic and economic stress factors on sexual communication. One study among seropositive men did assess the effect of demographic factors on safer sex communication and found no association (Crepaz & Marks, 2003).

Relationship power. Relationship power is conceptualized as characteristics within a relationship that may render one individual to have more dominance over the other (Wingood & DiClemente, 2000). Such characteristics include an older partner, having a partner with more control over the individual, and in the case of Latinos in the United States – having a partner that has been in the United States longer than the individual. The sexual division of power

refers to the interpersonal and structural factors that create gender inequities often placing women in the more subservient position. Findings from several studies suggest that power differentials within a relationship influence sexual communication. Women that perceived negative reactions from their partners were less likely to discuss sex and contraception use (Carey, Gordon, Morrison-Beedy, & McLean, 1997; Cleary, Barhman, MacCormack, & Herold, 2002; Lock, Ferguson, & Wise, 1998; Moore et al.,1995). A study (Bruhin, 2003) that explored power, sexual communication, and condom use found that couples with equal relationship power or female dominated power used condoms more frequently—provided there was sexual communication. Among the couples in which there was male-dominated power, even with some HIV communication, condom use was infrequent. Intimate partner violence (IPV) (or fear of IPV) was a factor that created a power differential between couples. Respondents from a qualitative study among Mexican American women shared how they experienced physical and verbal abuse at the suggestion of condom use with their partner (see Davila, 2002; Davila, 2005; Moreno, 2007; Suarez-Al-Adam, Raffaelli, & O'Leary, 2000).

Condom-less sex has been attributed to women's alleged inability to advocate for their sexual health and consequent increased vulnerability to HIV infection, which according to the "vulnerability paradigm" is in part the result of women's limited "sexual autonomy and men's sexual power and privilege" (Higgins, 2010). However, some literature challenges the view that relationship power is always male-dominated or involuntary.

One perspective is that relationship power can be fluid within the couple (Pulerwitz & Dworkin, 2006) and consequently women may be just as likely as men to determine sexual communication and condom-less sex. In fact, results from qualitative work among both Latinas (Hirsch, 2002) and non-Latinas (Kerrigan, Andrinopoulos, Chung, Glass, & Ellen, 2008; Sobo, 1995) suggest that some women desire condom-less sex for many complex reasons, which include the value of an established male partner. In some contexts, particularly in settings where women have limited opportunity for educational and economic advancement, an established male partner provides a degree of social status or respect. Concomitant with the benefit of respect are the added values and meaning some women may ascribe to their relationship—such as the quality of being trusting and loyal. Therefore, irrespective of indications of infidelity from one's partner, condom-less sex supports the valued notion of a close, loving, and faithful relationship (Hirsch, Meneses, Thompson, Negroni, Pelcastre, & del Rio, 2007; Kerrigan et al., 2008; Sobo, 1995). This complex phenomenon of "risk denial" underscores the relevance of affective attachment and social norms to relationship power.

Cathexis: social norms and affective attachments*.* Cathexis refers to the emotional attachments that one has with a sexual partner and the influence of emotion on sexual behavior (Ortiz-Torres et al., 2000; Wingood et al., 2000). In addition, cathexis addresses the gender roles and cultural values that are prescribed to men and women. These gender roles have mostly been described as rigid sexual scripts that are endorsed by Latinos, where *marianismo* refers to

a value of sexual naïveté in women, fidelity, and submission to their partners. *Machismo*, the counterpart of *marianismo*, has been described as men assuming the more powerful and dominating role within a relationship, and being promiscuous (De la Cancela, 1986; Marín, 2003; Noland, 2008).

A critical analysis of the literature suggests that these gender roles are fluid and multi-dimensional concepts influenced by socio-cultural and familial contexts (De La Cancela, 1986; Fiorentino, Berger, & Ramirez, 2007; Marano-Rivera, 2000). *Machismo* can be more appropriately described as the practice of demonstrating one's loyalty to one's family through being a nurturing protector and provider, assuming as authoritarian role in the household or relationship, and proving one's virility (Alvarez, unpublished b). *Marianismo* is the practice of fulfilling one's duty or responsibility of dedication to one's family and partner through the enactment of self-sacrifice, submission, chastity, and fidelity (Alvarez, unpublished b). The expressions of these behaviors are context sensitive and consequently provide for variations in the expression of the respective attributes within and between individuals. Given the complexity and variability of these 'traditional gender norms,' and this study's focus on sexual communication and sexual behavior, social norms are conceptualized as sexual gender norm stereotypes that young adults may subscribe to given their respective environments.

Regarding the relationship between traditional gender norms and sexual communication, gendered norm expectations also intertwine sexuality with social acceptability and thereby challenge one's ability to deviate from these

expectations (Windgood & DiClemente, 2000; Hirsch et al., 2009). Consequently, *machismo* and *marianismo* are often cited in the literature as negative influencers of sexual communication or positive influencers of sexual silence (Villar-Loubet, 2011). Sexual silence can be described as a social norm of avoiding open discussions about sex even within a private setting. The practice of sexual silence that is often cultivated from childhood perpetuates a discomfort and shame with sexual communication. A suggested consequence of this silence is that many Latino men and women do not discuss their sexual behaviors with each other or negotiate for safer sex practices, thus placing each other at risk for unintended consequences of sex.

An ethnographic study among Mexican adults presents a different perspective for why couples may embrace sexual silence and unprotected sex (Carillo, 2002). In this study, participants described the desire for spontaneity and irrationality and therefore did not desire any discussion about sex or safe sex. Also, due to feelings of trust, love, and the desire for intimacy, condom-less sex was preferred. Another perspective on sexual silence is that it also serves as a form of communication. For example, “risk denial,” or not confronting one’s partner about extra-relational affairs, may relay a message of tolerance for sexual transgressions in order to maintain the façade of a stable and happy relationship (Hirsch et al., 2002).

Relationship commitment. The other component of cathexis is relationship commitment. Relationship commitment refers to one’s investment in his/her relationship as well as the degree to which one intends to remain in

his/her relationship (Lund, 1985). Level of relationship importance or commitment has also been associated with sexual communication between the couples. Afifi (1999) investigated the importance of a relationship and identity goals on condom use. In a sample of sexually active college students, a high relationship attachment and a perceived negative response at the request of condom use was negatively associated with condom use. On the other hand, those who perceived themselves to be less committed to their sexual partner and did not believe the relationship would be long term were more likely to request condom use even if they thought it would hurt the relationship. Umphrey and Sherblom (2007) also investigated whether level of relationship commitment and the goal to maintain a relationship influenced the request for condom use among sexually active college students. Results showed that those that had a higher relational commitment and perceived that a request for condom use would be received negatively by his/her partner negatively influenced intention to request condom use (β = -0.22, p < .01).

Intrapersonal Variables

Intrapersonal variables are not a part of the TGP. However, they have been commonly addressed in other health behavior theories, including the Theory of Reasoned Action and Planned Behavior (TRA/PB) (Ajzen & Fishbein, 1980). According to the TRA/PB, behavior is predicted by attitudes, perceived partner approval, subjective norms, and behavioral beliefs. Attitudes refer to an individual's positive or negative perception of a behavior; perceived partner approval refers to an individual's perception about how his/her partner may

respond to a behavior; subjective norms refer to how an individual perceives significant others to evaluate a behavior; and behavioral beliefs describe the positive or negative beliefs one has about a behavior.

Other Concepts

Although not original concepts of the TGP, given that this study explores sexual communication and sexual behavior among Latinos, perceived risk for STI and acculturation are considered as potential moderators.

Acculturation. Acculturation is the dynamic process that involves the change in values, personal attitudes, cultural beliefs, and consequently behaviors due to regular interaction between majority and minority group members (Dana, 1996). In this study, level of acculturation is conceptualized as degree of language usage (Spanish or English) in various contexts such as in the home, reading, or with friends. Acculturation is suggested to influence the relationship between societal and interpersonal factors and sexual communication.

Perceived risk for STI. Relevant to one's sexual risk/protective behavior is his/her perceived risk for an unfavorable outcome as a result of having sex. In this study, perceived risk for STI refers to how much one believes he/she is at risk of contracting an STI from his/her sexual partner. Perceived risk for STIs is suggested to influence the relationship between sexual communication and sexual behavior.

Specific Aims

The specific research aims in this study are as follows:

Specific Aim 1. Examine whether sexual communication (verbal sexual health communication, verbal sexual satisfaction communication, and nonverbal communication) predicts sexual behavior (consistent condom use, condom use at last sex, contraceptive use, number of concurrent sexual partners). A second part of this specific aim was to examine whether perceived risk for STIs moderates the relationship between sexual communication and sexual behavior variables.

Specific Aim 2. Examine whether intrapersonal variables (perceived partner approval of sexual communication, attitudes towards sexual communication, behavioral beliefs, and subjective norms about sexual communication) predict sexual communication.

Specific Aim 3. Examine whether socioeconomic status and stress (level of education, employment status, and occupational and economic stress); relationship power (sexual relationship power, age difference between partners, and difference in length of time in the country); affective attachments (relationship duration, relationship status, and relationship commitment); and social norms (gender norm stereotypes) predict sexual communication. Another part of this specific aim was to examine whether acculturation moderates the relationship socioeconomic status and stress; relationship power; affective attachments; social norms; and sexual communication.

Specific Aim 4. Examine whether sexual communication mediates the relationship between socioeconomic status and stress; relationship power; affective attachments; and social norms, respectively, and the main outcome of

sexual behavior (consistent condom use, condom use at last sex, contraceptive use, number of concurrent sexual partners).

Specific Aim 5. Examine the gender differences for Specific Aims 1 – 4.

Summary

Findings from this study can help nurses and other healthcare providers better understand the complexity of sexual communication between young adult Latinos and their sexual partners. This enhanced knowledge may guide the development of appropriate interventions geared towards improved sexual communication and sexual behavior.

Chapter 2

Literature Review

This chapter critically examines the social and behavioral research on sexual communication among young adult Latinos in the context of HIV prevention and sexual risk and protective behaviors such as condom use. The review will focus on approaches to measuring sexual communication, the relationship between sexual communication and sexual behavior, and predictors of sexual communication. It will conclude by discussing gaps in the literature and areas for future study. Throughout the review is a critique of the research pertaining to the concepts of the extended version of the Theory of Gender and Power (TGP).

Theory of Gender and Power

The TGP has been used to inform intervention studies among African-Americans and Latinos (Koniak-Griffin et al., 2008) as well as to explore condom communication and condom use among 14 – 20 year old African American women (N = 701, M = 17.6 years, SD = 1.72) (DePadilla, Windle, Wingood, Cooper, DiClemente, 2011). Using structural equation modeling, DePadilla and others (2011) explored the direct and indirect effects of the TGP constructs on condom use. Results showed that socioeconomic status had an indirect negative effect on condom communication through negative personal affect (total effect β = -0.02, $p < .10$). Similarly, power imbalances—defined as history of physical,

emotional, and sexual abuse and fear of condom negotiation—had an indirect negative effect on condom use through negative personal affect (total effect β = -0.33, $p < .001$). Finally, affective attachment and social norms defined as older sex partners (total effect β = -0.08, $p < .01$) and parental sexual communication (β = 0.11, $p < .01$) indirectly predicted condom use through condom communication. These findings suggest that condom use among these young African-American women is most explained by the TGP construct of sexual division of power.

Prior to this current research study, TGP had not yet been used as a framework to explore sexual communication and behavior among heterosexual Latino women *and* men. Given this study's focus on Latinos and sexual communication, the extended version of the TGP was further modified based on the literature and findings from a preliminary study.

A preliminary qualitative descriptive study, which consisted of four sex-segregated focus group discussions, was conducted by the author (Alvarez, unpublished) in order to explore sexual communication from the perspective of young adult heterosexual Latinos. There were five participants in each group; two sessions were conducted in English and two in Spanish. An interview guide was used to facilitate discussion. The interview guide started with general questions and progressed to specific questions that addressed verbal and nonverbal ways of sharing sexual information with one's partner. The questions were open-ended to elicit unanticipated thoughts and opinions as well as foster group discussion– for example: 1) Thinking about communicating with a boyfriend, girlfriend,

spouse- what are things that are shared? 2) What information about sex is shared between couples? 3) How does a person communicate to his/her partner what he/she wants in a relationship? (see Appendix B for details).

Focus group discussions lasted 2 – 2 ½ hours and were audio recorded. The audio recordings were transcribed verbatim by the PI, yielding 79 single-spaced pages of data for analysis. Transcribed interviews were entered into QSR NVivo 8, a qualitative data analysis software program used to assist with data coding, code comparisons, categorizing codes, and linking domains and categories.

Qualitative analysis consisted of open coding of the transcribed interviews, and language derived from the data was used to create the selected codes. Continuous review and comparison of the codes revealed domains into which the codes were sorted. These domains were then used to create a codebook that guided the coding of all interviews (Corbin & Strauss, 2008). Common patterns noted among these domains generated several categories within each domain. Data analysis was concurrent with data collection and began after the first group interview. This concurrent process contributed to validity of the data (Boeije, 2002). Immediate data analysis revealed some challenges with the interview questions which informed needed adjustments for subsequent focus groups. For example, one of the interview questions was: “For a lot of people sex is also part of a relationship. What is your definition of sex?” Participants’ prolonged silence with this question suggested a need for clarification. The question was then

changed to: “Some people consider sex to be the penis in the vagina. What do you think about this? What do you consider to be sex?”

Participants (*N* = 20, ages 18-30) from the focus groups described sexual communication within their relationships as an evolving phenomenon. At the beginning of the relationship, sexual communication was reported as primarily nonverbal and focused on sexual pleasure. Verbal sexual communication was initially avoided for several reasons. First, restraint of verbal communication was shaped by *attitudes* (positive or negative feelings) towards sexual communication. Participants shared that they avoided discussions about sex and sexual histories due to feelings of embarrassment or lack of concern or interest in their partner’s sexual past. For example, one man shared, “If I want to be with her, I want to be with her, I couldn’t care less who she’s been with.” A number of participants also remarked – “It’s none of your business who I’ve been with.” In which case, not only were they not willing to inquire about their partner’s sexual past, but these participants were also not willing to readily talk about their own sexual history. According to some participants, learning the details about past sexual partners was considered “unhelpful,” in part because it could be somewhat threatening to the individual inquiring. One woman said:

> I guess because I’m self-conscious about myself I didn’t want to know specifics because if I ever ran into the person in the street, I didn’t know if I would be like--that’s her! (said in a surprised tone)…..I didn’t want to compare myself to other women that he’s been with. (English group)

Second, the avoidance of verbal sexual communication was influenced by *subjective beliefs* about how significant others would think about sexual communication with one's sexual partner. Some participants, primarily the men, were concerned that their partner would disapprove or be offended if the participant were to initiate discussions about sex in the relationship. Given the uncertainty of how a woman may respond, and knowing that as men they would always be open to the discussion, they felt it safer to let women bring up the topic. One male said:

I wouldn't jump into the subject, I think I would leave it up to her, me as a man, I would leave it up to her, if she wants to bring it up. I think women are more, some depends on who it is, but a lot of women are more touchy about the subject. (Male, English group)

As a result of the relevance of both attitudes and subjective and normative beliefs in this preliminary work, the initial TGP framework was modified to include these intrapersonal concepts (Further detail about findings from the focus group are noted in Appendix C).

Sexual Communication

There is variation within the literature on how sexual communication is conceptualized. Only one study provided a definition for "health-protective sexual communication" (HPSC) (van der Straten, Catania, & Pollack, 1998). HPSC was defined as "substantive sexual communication (inquiring about sexual history, contraceptive methods used, and HIV status, revealing one's own sexual history, or requesting condom use)…." (p. 213). This viewpoint of sexual communication

is reflected in the HPSC scale, a commonly used measure of sexual communication (Catania et al., 1992; Harvey & Henderson, 2006; Harvey et al., 2009; Peragallo et al., 2005; Rojas-Guyler et al., 2005; van der Straten, Catania, & Pollack, 1998). The HPSC is a 10-item scale that assesses discussions with sexual partners about sex-related issues that have health consequences. Higher scores on the HPSC scale suggest greater sex communication. Although often used to evaluate sexual communication in any sexual relationship, the scale was intended to evaluate sexual communication with a “first-time” or “new” sexual partner. Given that the scale is geared towards evaluating sexual communication in a new sexual relationship, the scale is not sensitive to change over time and may not be optimal for evaluating sexual communication in committed and long-term relationships.

Aside from evaluating discussions about condoms and health protective topics, researchers have also evaluated the strategies men and women employ to influence condom use with their sexual partner. Studies exploring verbal and nonverbal sexual communication regarding condom use have included varying participant samples including: a community-based sample (*N* = 113, 55% male, 26% Latino) (Noar, Morokoff, & Harlow, 2004); heterosexual couples (*N* = 90 couples, 43% Latino) (Bird, Harvey, Beckman, & Johnson, 2001); and Latino youth (*N* = 574, mean age 18.4, 61% female) (Tschann, Flores, de Groat, Deardorff, & Wibbelsman, 2010). These studies reveal an array of strategies used to advocate as well as discourage condom use with partners. Strategies include justifying condom use as an indicator of care for the relationship;

discussion of risk for STIs and HIV; providing false history or health risk information to encourage condom use; discussion of pregnancy prevention; demand for condom use; and threatening to withhold sex (Bird et al., 2001; Noar et al., 2004; Tschann et al., 2010; Zukoski, Harvey, & Branch, 2009). The only nonverbal strategy was the use of seduction for condom use (Noar, Morokoff, & Harlow, 2004; Tschann et al., 2010; Zukoski, Harvey, & Branch, 2009). Partners who did not want to use condoms ignored condom use and expressed dislike for condoms. The study of Latino youth (Tschann, 2010) was the only study to note gender differences in the use of these strategies. Compared to women, men were more insistent and used more direct verbal communication when advocating for condom use (Tschann et al., 2010). Women were more likely to ignore condom use compared to men (Tschann et al., 2010).

Using semi-structured interviews, Zukoski and others (2009) explored the verbal and nonverbal strategies that couples use to promote condom use. The strategies mentioned by the Zukosksi et al. respondents (*N* = 61 heterosexual couples, 50% Latino) mirrored those found in previous studies (Bird et al., 2001; Noar et al., 2004; Tschann et al., 2010); some participants made direct requests for condom use and some merely presented a condom. These verbal and nonverbal strategies were further categorized as unilateral and bilateral forms of communication (Zukoski, Harvey, & Branch, 2009). Unilateral discussion refers to communication that is more demanding and does not encourage discussion (i.e., threatening to withhold sex). Bilateral communication refers to attempts to convince one's partner to use condoms by creating an opportunity for discussion;

for example, some women talked about pregnancy and STI prevention to persuade their partner to use condoms.

Although not designed to examine communication or strategies concerning condom use, a post-HIV prevention intervention focus group (*N* = 45; 24.4% Latina; average age 22) that addressed women's sexual scripts (sexual behaviors that women enact in various scenarios as a result of cultural influence) provided some insight about attitudes towards verbal and nonverbal sexual communication and use of implementation strategies (Dworkin, Beckford, & Ehrhardt, 2007). For most (51%) participants, discussion of sexual preferences during intimacy was considered ideal. Another subset (27%) of women believed they could communicate their sexual preferences through body language, and hoped that their sexual partner would "just know" their sexual preferences, thereby eliminating the need to verbally communicate. The majority of women (91%) described condoms as part of the ideal sexual encounter, where condom use would be brought up at the time of penetration. A few women (23%) reported that condom use would ideally be discussed prior to the first sexual encounter. A small minority of the women (2%) shared that another time to address condom use would be immediately before clothes were removed. Other participants (8%) reported they would not raise the issue and hoped for an unspoken mutual understanding of condom use.

The focus on verbal communication and condoms is, in part, due to how sexual communication has been explored. Nonverbal and verbal strategies derived from research studies are commonly elicited in response to hypothetical

scenarios where participants were asked how they would negotiate on condom use with their partner (Bird et al., 2001; Dworkin et al., 2007). While a hypothetical scenario allows for some insight into verbal and nonverbal modes of communication, a scenario may force participants to respond to a situation with which he/she may not identify. For example, condom-less sex within the past 3 months was an inclusion criterion for some studies (Bird et al., 2001; Dworkin et al., 2007; Zukoski, Harvey, & Branch, 2009). Therefore, reported verbal strategies may not reflect the typical practices of the participants and their sexual partners. Among the reviewed research, only three studies (Noar et al., 2004; Tschann et al., 2010; Zukoski, Harvey, & Branch, 2009b) employed methods that could elicit more valid reports of sexual communication strategies used by participants. In the study by Tschann (2010), the items used to evaluate condom use or disuse strategies were developed from focus groups that were representative of the study sample. Regarding the other two studies, close-ended survey questions (Noar et al., 2004) and open-ended questions that focused specifically on condom use (Zukoski, Harvey, & Branch, 2009) were used to elicit the communication strategies used to promote condom use.

Based on how sexual communication has been examined in the reviewed literature, the prevailing perspective of sexual communication is directed to individual partner's sexual health status and focused on strategies geared towards using condoms. Given that unintended consequences of sex often occur within the context of a romantic relationship (a sexual relationship in which either or both individuals have some emotional affinity for their partner), learning about

sexual communication from the perspective of young adult Latinos in relationships may offer a more inclusive perspective.

One research study explored the meaning of sexual communication for young adult Latinos. Alvarez (unpublished) conducted 4 sex-segregated focus groups in English and Spanish among heterosexual Latinos 18-30 years old who were currently in sexually active relationships (*N* = 20). The focus groups discussions revealed that early in a relationship, sexual communication focuses on sexual satisfaction. Participants discussed how heavy petting and playful touching helped to initiate sexual activity. Body language was also reported as an indicator of sexual satisfaction during sexual activity. There was also conversation before, after, and during sex about one's sexual likes and dislikes. After sexual activity, and as time in the relationship, trust, and relationship commitment increased, verbal sexual communication expanded to include sexual history, but only for those who cared to inquire about this information. These findings suggest that questions routinely used for quantitative exploration of sexual communication may not be representative of what young adults discuss with their sexual partners.

In summary, most researchers that have explored sexual communication among young adult Latinos have conceptualized sexual communication in a way that does not account for participants' perspectives on sexual communication. The importance of understanding the perspectives and beliefs of young Latinos about sexual communication can be highlighted by the fact that these studies show that participants use various strategies to advocate for condom use but yet

remain inconsistent with condom use. Sexual communication in most of the studies focused only on condom use. The responses elicited by questions that focus on condom use may not reflect the reality of sexual communication among young adult Latinos who are in relationships. Relationship status may decrease one's perception of the need for condoms, especially if other forms of contraception are being used; none of the studies explored this aspect of sexual communication or contraceptives other than condoms. The study by Alvarez (unpublished) reveals findings that support the need for further exploration of the context of sexual communication especially within sexually active non-casual relationships.

The Influence of Sexual Communication on Condom Use

Several studies have shown a positive relationship between sexual communication and condom use. Among samples that included Latino men and women, consistent condom use was positively associated with sexual communication that focused on HIV and sexual history (Castaneda, 2000; Catania et al., 1992; Rickman et al., 1994). Heterosexual men and women (N = 835, 14.6% Latino) who engaged in health-protective sexual communication were respectively seven and six times more likely ($p < .001$) to consistently use condoms compared to those who did not engage in any sexual communication (van der Straten, Catania, & Pollack, 1998). Similarly, adolescents (50% Latino, N = 2135) who never discussed sexual histories with their sexual partners were more likely (OR = 2.3, $p < .001$) to report never having used condoms compared to the adolescents that did report sexual communication (Rickman et al., 1994).

More specifically, direct requests for condom use also predict condom use outcomes. In an ethnically diverse community sample (N = 113, 26% Latino), participants who reported condom use at last sex reported more condom influence strategies (i.e., direct requests for condom use or threatening to withhold sex) (MANOVA, $p < .001$, $\eta 2 = .45$) (Noar et al., 2004).

Similar findings were noted in an exclusively Latino sample (Tschann et al., 2010). Higher rates of condom use were predicted by direct verbal/nonverbal sexual communication ($\beta = 0.28$, $p < .001$), as well as, greater use of risk information ($\beta = 0.11$, $p < .001$). Also, among men, expressing a dislike for condom use was also associated with greater condom use ($\beta = 0.15$, $p < .05$); this relationship was suggested to be the result of successful counter-negotiation by a female partner. Lastly, not considering condom use was a negative predictor of condom use ($\beta = -0.30$, $p < .001$).

Sexual Communication and Condom Use Among Men

Regarding studies that included only men, one found no relationship between sex communication and condom use (Harvey & Henderson, 2006). Among a sample of Latino men (N = 191, mean age = 22), health protective sexual communication (HPSC) had no relationship with condom use. Men in this study were recruited through their female partners who had agreed to participate in a couple-based HIV-prevention intervention. The joint agreement to participate in an intervention suggests a high degree of commitment between partners which may be influencing condom use and sexual communication. Given the relationship status, participants may have had a low perceived risk for adverse

health outcomes, which may explain the low reports of HPSC (average score – 5/15) and low reports (10.7%) of consistent condom use.

A positive relationship between sexual communication and condom use was found in all other studies that included only men (Crepaz & Marks, 2003; Ford & Norris, 1995; Ibanez et al., 2005; Noar, Morokoff, & Redding, 2002). Men who reported discussing condoms were more likely to have used condoms the last time they had sex (Ibanez, Marin, Villareal, & Gomez, 2005). However, there was no explanation or definition about what it means to "discuss" condoms. Since the use of male condoms is typically within the male's control, these findings may represent men who wanted and insisted on condom use. If there was discussion, it remains unclear if the "discussion" or "talk" was unilateral, bilateral, or negotiated.

It has been suggested, that like women, men also need to assert their desire for condom use in order to practice consistent use (Noar, Morokoff, & Redding, 2002). Negotiation of condom use among men has also been framed as a form of sexual assertiveness. Men's sexual assertiveness and consequent condom use was explored among a diverse sample of community (N = 62, 15% Latino) and college (N = 272) heterosexual males (Noar, Morokoff, & Redding, 2002). The measure for sexual assertiveness entailed statements that suggested verbal and nonverbal methods on advocating for condom use – for example, "I insist on using condoms if I want to…" Men with higher sexual assertiveness scores were less likely to have engaged in unprotected sex ($p < .001$). This was

the only study that presented the perspective that men may also feel challenged to assert their desire for condom use.

What is revealed during discussions about sex is also important. One study investigated the influence of seropositive HIV status disclosure and safer sex communication on protected sex (N = 105, 16% Latino) (Crepaz & Marks, 2003). Men who discussed safer sex (OR = 3.24, p <.05) and condom use (OR = 3.22, p < .01) were three times more likely to have safer sex compared to those who did not discuss safe types of sexual activity. Disclosure alone did not determine safer sex; it was disclosure together with the discussion of safer sex practices that resulted in condom use. This finding highlights the importance of discussions on how to remain safe versus merely sharing information about one's personal health. These studies among males which suggest that Latino men do engage in some communication about sex and condom use with their sexual partners, presents a different perspective to that of the qualitative data on sexual communication, which suggest that Latino men and women do not communicate about sex and condom use (Marston, 2004; Noland, 2008). In order to understand the context and meaning of what they consider to be "talking" or "discussing" condom use, more studies that include the male perspective are needed.

Sexual Communication and Condom Use Among Women

Studies that examined the relationship between sexual communication and condom use among women collectively provided conflicting results. Some studies found a positive relationship between sexual communication and condom

use (Rojas-Guyler et al., 2005; Saul et al., 2000), while another study found no association (Moore et al., 1995). Instead of evaluating the actual behavior of sexual communication, other authors (Gomez, Hernandez, & Faigeles, 1999; Soler, Quadagno, Sly, Riehman, Eberstein, & Harrison, 2000) evaluated the relationship between comfort with sexual communication (how comfortable one feels about discussing sex) and condom use. One study showed no relationship between comfort with sexual communication and condom use. A quasi-experimental study only showed a relationship at baseline but not at three and six months follow up (Gomez et al., 1999). Another study demonstrated a negative relationship between comfort with sexual communication and condom use (Deardorff, Tschann, & Flores, 2008). In all of these studies, participants reported being in close relationships (cohabitating and married). These inconsistent findings may be related to the fact that couples may engage in sexual communication or feel comfortable discussing sexual issues; however, affective attachments such as commitment or trust may negate the need for condoms. In the context of close relationships, factors that may influence sexual communication and condom use should be further explored.

Sexual Communication and Acculturation

Researchers often contend that as Latinos (not raised in the United States) become more assimilated, their social norms regarding sex may also change. Regarding sexual communication, the assumption is that more acculturated or English-dominant Latinos will be more likely to engage in sexual communication. Research on the relationship between acculturation and sexual

communication is equivocal. Among a sample of Latinas (Moore, 1995), there was no relationship found between HIV-related communication and acculturation (b = 0.08, p = .32) (Moore, 1995). Findings from another exploratory study among Latinas (N = 295) showed a positive relationship between acculturation and sexual communication (Rojas-Guyler et al., 2005). Conversely, among a sample of Latino men (N = 591), there was a negative association between acculturation and discussion of condom use with a sexual partner (Ibanez, Marin, Villareal, & Gomez, 2005). While there may be variation in the direct effect of acculturation on sexual communication, given the diversity among Latinos understanding how acculturation may moderate the relationship between sexual communication and its predictors is also important.

Sexual Communication and Perceived Risk for STIs

Perception of risk for HIV has been associated with sexual communication. In a study that examined Latina women's (N = 189) sexual communication with their primary partners about HIV topics, perceived increased risk for HIV infection predicted HIV related communication (Moore et al., 1995). Women who perceived themselves to be at greater risk for HIV infection engaged in more HIV-related communication with their partners. Similarly, in a study among Latino men, greater perceived risk for HIV/STI from their partner was positively associated with condom use (Harvey & Henderson, 2006). Neither of these studies explored how perceived risk for HIV/STI influenced the relationship between sexual communication and sexual behavior. This potential moderator

effect is important to consider in order to understand the contexts in which sexual communication may influence sexual behavior.

Predictors of Sexual Communication

Few studies have explored factors that may influence sexual communication within the context of a romantic relationship (a non-casual sexually active relationship in which there is some intention of remaining with one's respective partner). Pertinent to romantic relationships are factors such as gender norms, power differentials, and affective attachment dynamics, which can influence sexual communication. These relationship factors are considered in the following review of predictors of sexual communication.

Social Norms

Among Latino populations, traditional cultural beliefs and perceptions on gender roles have often been cited as having a negative influence on sexual communication. Several qualitative studies have explored gender roles and sexual communication among Latinos (Marston, 2004; Noland, 2006; Noland, 2008). Exploration of gender differences in sexual communication among a sample of Mexican adolescents (N = 152, 16-22 years old) revealed that males and females discussed sexual issues with members of the same sex but had difficulty broaching the subject with the opposite sex (Marston, 2004). Males discussed sex with other males for the purposes of posturing and impressing each other, and women had discussions about sex primarily to share feelings about relationships and sexual issues. Data regarding discussions within couples was not presented. Data analysis for the study was also guided by the author's

initial premise that “communication is gendered” and the data supported this initial claim. However, the study participants’ responses pointed to other challenges with sexual communication. For example, male participants reported that discussing sex with females was uncomfortable, yet the author did not present the reasons for these sentiments.

Machismo is often considered a common barrier to sexual communication between Latino men and women. The influence of gender roles on sexual communication among Puerto Rican men (*N* = 42, 19-56 years old, average age 26) (Noland, 2006) and among both Puerto Rican men and women (*N* = 17, 18-48 years old, average age 26) (Noland, 2008) were explored using individual interviews. Participants offered some rationale to the avoidance of discussing sexual issues with the opposite sex. The social expectation for women to be sexually submissive reportedly discouraged women from discussing sex with their partners out of concern for appearing too knowledgeable about sex (Noland, 2008). Men and women shared that because of *machismo*, women were expected to follow whatever a man requested thereby eliminating the need for discussion. However, there was no clarification on the meaning of *machismo* and it was unclear what aspect of *machismo* made communication uncomfortable. Both men and women had concerns about their partner’s reaction if they did attempt to discuss sex. Men were concerned about being offensive or disrespectful, while women were concerned about hurting their partners’ feelings or they feared a negative reaction. Men also felt pressured to have concurrent partners in order to “fit in,” with other males, thus making communication with a

partner more challenging due to concerns of having to reveal the issue of having multiple sexual partners with their current female partner.

Similar to the study by Marston (2004), Noland (2006, 2008) found that men discussed sex with other men primarily for impressing other males, and women discussed relationship issues among themselves for learning and sharing experiences. The data in the studies among Puerto Ricans focused mainly on *machismo* itself and how it may serve as a barrier; however, there was little report of actual communication and what the participants thought communication should entail. It remains unclear what aspects or topics within the realm of sexual communication were so uncomfortable for participants to discuss.

Only two quantitative studies explored the influence of cultural values on sexual behavior. One study first used focus groups of Latino youth (16-22 years old) to develop measures of sexual values that may be associated with sexual behavior (Deardorff et al., 2008). Gender-segregated focus groups and individual interviews revealed the following themes that were considered reflective of Latino sexual values: the importance of female virginity before marriage; sexual communication as disrespectful; and the importance of sexually satisfying a partner. These themes guided the development of measures that were tested in a sample of sexually active adolescents (N = 694; average age 18.4). The association of these sexual values with comfort with sexual communication was also examined. Evaluation of gender differences with these sexual values showed that satisfying a partner sexually and female virginity before marriage were more important to men than women. Among the men, comfort with sexual

communication was not associated with any of the sexual values. On the other hand, among women, there was a negative relationship between comfort with sexual communication and sexual talk as disrespectful (r = -.25, p < .001), and female virginity as important (r = -.19, p < .001). These findings suggested that those who are more comfortable discussing sexual issues are less likely to believe in traditional values. However, this study measured only comfort with sexual communication and not actual communication.

Another quantitative study (van der Straten et al., 1998) reported findings that suggest a negative relationship between traditional values and health protective sexual communication. Focusing on a diverse sample of men and women (N = 835, 52.5% male, 14% Latino, range 18-29 years old), investigators examined the ability to talk about safer sex with a new partner. However, the subsequent findings were not reflective of individuals in new relationships as most of the participants had been in long-term relationships for an average of 12 years. Among women, but not men, greater acceptance of the use of coercion in sexual activity was associated with greater sexual communication (β = 0.21, p < .05). Contrary to the notion that women become more passive in the context of a relationship with a sexually dominating male, this finding suggests that women may attempt to communicate more in these scenarios. In this sample, compared to non-Latina women, Latinas had the highest reports of sexual guilt, which was negatively associated with sexual communication (no statistical estimates were provided). As suggested by the authors, women with greater belief in traditional

gender expectations such as chastity may be less likely to engage in sexual communication.

Results from these quantitative studies (Deardorff et al., 2008; van der Straten et al, 1998) validate the findings from the qualitative studies (Marston, 2004; Noland, 2006; Noland, 2008) which indicate that gender roles influence comfort with sexual communication and actual sexual communication, particularly for women. These studies also raise the issue of cultural inconsistencies between what people value and their actual behavior. For example in the study by Deardorff and others (2008), all participants were sexually active and unmarried, yet they believed in female virginity before sex. Therefore, it should not be assumed that belief in gender roles consistently has a direct influence on sexual behavior.

Relationship Power

Power imbalances due to gender roles and financial resources have also been suggested as barriers to communication, particularly for women. Limited financial resources impede access to health care resources and increase a woman's reliance on her male partner for economic support. A suspected consequence of the co-dependency is unsafe sex (Marin, 2003; Ortiz-Torres et al., 2000; Wingood, 2003). In regards to sexual communication, several authors contend that women are often unable to negotiate safer sex because of financial dependence on their partners and fear of negative responses from their partner (Amaro, Raj, & Reed, 2001; Marin, 2003; Melendez, Hoffman, Exner, Leu, & Ehrhardt, 2003). However, several studies counter these claims.

Regarding power that refers to a person dominating or controlling their sexual partner, a few studies showed that Latina women do have power in their relationships. Using a diverse sample of Latinas (Mexicans, Puerto Ricans, and Dominicans) (*N* = 189) Moore and others (1995) explored predictors of HIV-related communication. When participants were asked about perceived partner reactions at the suggestion of condom use, few women reported they expected dramatic or severe reactions such as a physical violence (4.5%). Furthermore, in situations where Latinas were suspicious of infidelity, some (59%) requested that their partners change behavior. Requests for change in behavior included that he stop having sex with others, decrease his number of sexual partners, and use condoms when with others. Hence, while financial inequality may be a barrier to sexual communication for some women, it may not necessarily result in the female partner being subordinate in the relationship.

Just as financial dependence may not result in the lack of agency in a relationship, financial power or security may not result in greater sexual communication. The impact of power on self-protective behavior was examined among a sample of Puerto Rican women (*N* = 187) (Saul et al., 2000). Self-protective behavior was operationalized as HIV related communication such as discussing condom use with one's partner to protect one's self from HIV. Resource power was defined by level of education and employment status. Being employed had a negative relationship with HIV-related communication [$t(1, 166) = -3.67$, $p < .01$]. The authors suggest that employed women may be more educated and therefore more likely to be in relationships with men who are

agreeable to condom use such that consequently, HIV communication may not be relevant. However, employment did not demonstrate a significant relationship with education.

Regarding the relationship between relationship power and sexual behavior among men, it has been argued that the sole fact that a man may be the breadwinner does not mean that he is sexually assertive and would react negatively to discussions about safer sex (Noar, Morokoff, & Redding, 2002). Unlike participants (*N* = 65, 15% Latino) in the Noar et al. study (2002) that validated men's need to be verbally sexually assertive in support of condoms, some Latino male participants (*N* = 10) in a qualitative study discussed how they automatically use condoms without any discussion (Alvarez, unpublished). This action of putting on a condom without creating an opportunity for discussion could be perceived as a form of sexual assertion, exertion of one's power to protect one's self as well as his partner.

One qualitative study explored power dynamics and safer sex communication among couples (Pulerwitz & Dworkin, 2006). Data from the individual interviews (*N* = 19) suggest that gender power dynamics within a relationship are often fluid. This fluidity referred to how the person that takes the lead in safer sex negotiation, changes from one person to the other within a relationship, or one partner leaves the negotiation to the other. For example, one woman described giving her partner permission not to use a condom, but then he used one anyway. Also, some male participants acknowledged that they were willing to use condoms if their partner were to make the request. These findings

illustrate the fact that while either person in a relationship has the power to determine condom use, he/she may defer that power to his/her partner. This fluidity is a different perspective to the common stereotype that men dominate sexual decision-making in their relationships and are not open to communication, and that women do not feel empowered to communicate their desire for condom use.

Recent research among Latina women suggests that Latinas do not always desire condom use. Among Latina women, condom-less sex has been reported as desirable. Some women who participated in a study that explored what sexual communication entails for young adult Latinos (Alvarez, unpublished) shared that they felt empowered not having to rely on their partners for birth control. These studies (Alvarez, unpublished; Pulerwitz & Dworkin, 2006) highlight some of the nuances in sexual relationships that may not be quantifiable. For instance, the fact that women do not always insist on condom use because they themselves do not like them or because it would affect the intimacy of the relationship provides some insight into why sexual communication about condom use may not be invoked. The studies also emphasize the relevance of affective attachments such as commitment and intimacy when exploring relationship power and sexual communication.

Affective Attachments

Intimacy and degree of commitment to a relationship have also shown to be influencers of sexual communication. Castaneda (2000) explored the relationship between intimacy and commitment on HIV related communication in

a sample of Mexican American young adults (N = 115, 76 women, 39 men). Intimacy was conceptualized as open and honest communication whereas commitment was defined as the decision to maintain a relationship. Compared to participants with low reports of intimacy, adults who reported high intimacy were more likely to engage in HIV related communication (β = 0.26, p < .001). This positive relationship held for women but not for men. In men only, commitment was positively related to HIV related communication (β = 0.40, p < .05). These findings suggest that factors of affective attachment may differ by gender and consequently result in different influences on sexual communication.

In contrast to the findings from Castaneda (2000), commitment to the relationship in a sample of Puerto Rican women (N = 187) was associated with less communication [$t(1, 166) = -3.67$, $p < .01$] (Saul et al., 2000). In Saul's study, commitment was also operationalized as the degree to which one is determined to remain in a relationship. It could be that the more highly committed women in this sample perceived the same level of commitment from their partners and therefore did not perceive the need for HIV related communication.

Mirroring previous studies, among a diverse sample of Latina women (N = 189, Mexican, Dominican, and Puerto Rican), the influences of close relationship characteristics/openness of communication (considered a degree of intimacy by other studies) and openness of sex communication on HIV related communication were evaluated. Ordinary least squares regression showed that openness of communication was positively associated (b = 0.17, p = .05) with HIV related communication. These positive relationships between degrees of

intimacy/openness of communication and HIV-related communication may be explained by the conceptual similarity between the two variables. Other aspects of intimacy, such as physical intimacy, should also be evaluated. Contrary to findings from the empirical studies, the qualitative study by Alvarez (unpublished) showed that greater affective attachment might have a negative association with sexual communication. Within the focus group discussions with men, a few respondents shared that the desire they had to be with their partner, made any concerns about their partner's sexual history irrelevant. This perspective reveals another gap in the literature—how the degree of intimacy and affective attachment influence sexual communication and ultimately sexual behavior for both men and women.

Intrapersonal Factors and Sexual Communication

Regarding sexual behavior among young Latinos, intrapersonal factors have been explored with a focus on condom use (Jemmot, Jemmott III, & Villarruel, 2002; Villarruel, Jemmott, Jemmott, & Ronis, 2004) and sexual behavior (Villarruel et al., 2004), but not sexual communication with one's sexual partner. Perceived partner approval was positively associated with condom use among Latino college students (Jemmott, Jemmott III, & Villarruel, 2002) and among Latino men (N = 191) (Harvey & Henderson, 2006). Also among Latino men, perceived partner approval for condoms (OR = 2.38, p < .001) and positive attitudes towards condoms (OR = 1.62, p < .05) were positively associated with condom use. Similarly, perceived partner approval (OR = 2.63, p = .018) and attitudes towards (OR = 2.33, p =.019) were positively associated with sexual

intercourse among Latino youth (Villarruel, 2004). The selected intrapersonal variables regarding sexual communication for this study are expected to influence sexual communication.

Gaps and Limitations of the Literature

In considering further study of sexual communication among young adult Latinos within the public health and HIV prevention literature, there are a number of gaps and limitations in the literature thus far that warrant attention. One limitation is that few studies are exclusively representative of the Latino population. While all studies included Latinos, only 11 studies focused exclusively on Latinos, and of the 11 studies only 8 of datasets used for analysis are represented – the majority of which focus on women (Castaneda, 2000; J. Deardorff et al., 2008; Gomez et al., 1999; Harvey & and Henderson, 2006; Ibanez, Marin, Villareal, & Gomez, 2005; Marston, 2004; Moore et al., 1995; Noland, 2006; Peragallo et al., 2005; Saul et al., 2000). The studies that did include subsamples of Latinos (Bird et al., 2001; Catania et al., 1992; Crepaz & Marks, 2003; Dworkin et al., 2007; Ford & Norris, 1995; Harvey et al., 2009; Noar, Morokoff, & Redding, 2002; Noar et al., 2004; Pulerwitz & Dworkin, 2006; Rickman et al., 1994; Soler et al., 2000; van der Straten et al., 1998; Zukoski, Harvey, & Branch, 2009) did not disaggregate the data by ethnicity to show the relationship between sexual communication and condom use among Latinos. Therefore, some of the findings may not truly really reflect sexual communication and condom use behaviors among Latinos, especially in studies where Latinos were a minority of the sample.

Another limitation of the literature is the limited perspective from Latino men about sexual communication. Several studies showed differences in communication between men and women, however only six studies focused on men, and two out of six focused exclusively on Latino men. In order to generate research useful to heterosexual couples, the male perspective on sexual communication is important and deserves further study.

Limiting the scope of what is known about sexual communication among Latinos is how sexual communication has been conceptualized. Sexual communication research among Latinos has been one-dimensional, emphasizing verbal activity, with a focus on verbal communication about condom use, and verbal and nonverbal sexual communication strategies regarding condom use negotiation. This focus on sexual communication strategies assumes that only one person within the relationship desires to use condoms or that there are indeed barriers to bringing up condom use. However, when considering individuals in committed relationships the decision to have condom-less sex is mutual (Alvarez, unpublished).

The importance of understanding the perspectives and beliefs of young Latinos about sexual communication can be highlighted by the fact that these studies show that participants use various strategies to advocate for condom use but yet remain inconsistent with condom use. The responses elicited by questions that focus on condom use, may not reflect the reality of sexual communication among young adult Latinos who are in relationships. Relationship status may decrease one's perception of the need for condoms, especially if

other forms of contraception are being used; none of the studies explored this aspect of sexual communication or the contraceptives other than condoms. The study by Alvarez (unpublished) revealed that young adult's sexual communication with their sexual partners did not focus on issues of sexual health but, rather, sexual pleasure, and furthermore that sexual communication was also nonverbal. Inclusion of this perspective in subsequent sexual communication studies among Latinos may help provide a more complete perspective of sexual communication, its predictors, and the mechanism by which it influences sexual behavior.

Affective attachment, a common factor in most sexually active relationships, was only explored in four studies. Results suggested that the degree of attachment or commitment can increase or decrease sexual communication between partners, and that this relationship may differ by gender. However, only one of the empirical studies included a sample of men. Further exploration of how affective attachment works to influence sexual communication should be further studied with both men and women.

Summary

Sexual communication between young adult Latinos and their sexual partners is a multifaceted and complex phenomenon. The quantitative public health and HIV prevention studies that have explored this phenomenon have been primarily one-dimensional, focusing on verbal communication and condom use. In addition, hypothetical scenarios were often used to illicit responses about sexual communication, thereby limiting the validity of the findings. When

considering predictors of sexual communication, the influence of affective attachments has been rarely addressed and instead there has been an emphasis on suggesting “traditional cultural dynamics” as the main barrier to sexual communication among Latinos. Finally, the data are mainly representative of Latina women and not of men. Given these limitations, sexual communication among young adult Latinos warrants further research with a more comprehensive and evidence-based perspective.

Chapter 3

Methodology

The organizing framework for this study is a modified version of the theory of gender and power (TGP) (Wingood & DiClemente, 2000). Consistent with this theory, this study explores the influence of socioeconomic status, relationship power dynamics, social norms, affective attachments, and intrapersonal variables on verbal and nonverbal sexual communication and sexual behavior. In this chapter, the method, procedures, measures for all variables, and plan for data analysis are presented.

Design

In this descriptive, exploratory study, 18-30 year old Latino men (*n* = 109) and women (*n* = 111) who had been in a sexually active heterosexual relationship for at least 3 months were recruited from a community health clinic in southwest Detroit and from the general population in Southeastern Michigan. Data were collected from participants using paper-pencil questionnaires in either English or Spanish

Setting

Participants were recruited from a community-based health clinic in southwest Detroit, Michigan. Latinos comprise approximately 6.1% of the population in the Detroit metropolitan area, but more than half (58%) of the population in southwest Detroit (U.S. Census, 2007). In southwest Detroit, the

median family income is $29,856 and 27.4% of families live below the poverty level (U.S. Census, 2000). The community-based health clinic has served the southwest Detroit community for almost 40 years, and its clientele are predominantly Latino. In addition to southwest Detroit, two cities (Ypsilanti and Ann Arbor) in Washtenaw County, Michigan, were used as recruitment sites. Latinos comprise 2.7% of the population in Washtenaw County, (U.S. Census Bureau, 2005-2009 American Community Survey, 2011) (American Community Survey, 2007) where the median family income is $54,506, and 5.7% of the population lives below the poverty level (U.S. Census, 2000).

Sample

Participants were eligible to participate in the study if they self-identified as Latino; were in a sexually active heterosexual relationship (currently having sex with their partner); had been in their relationship for at least 3 months; were between the ages of 18 and 30 years; and could speak and write Spanish or English. Participants were asked to invite their primary partners to participate in the study; however, participation as a couple was not required, and their partner also had to meet the inclusion criteria in order to participate. Married participants were included because there is evidence to suggest that for some women, marital sex is a risk factor for HIV (Hirsch, Higgins, Bentley, & Nathanson, 2002). In addition, given that extramarital relationships occur, sexual communication remains important for married couples. Participants were excluded if they reported trying or planning to become pregnant, were pregnant, or were less than

3 months postpartum. These individuals were excluded because they are unlikely to engage in behaviors that are protective against pregnancy and STIs.

From May 2011 to September 2011, a total of 232 Latino men and women expressed an interest in completing the questionnaire, however 12 participant surveys were excluded from the analysis due to partial or complete non-response (*n* = 6), ineligibility (*n* = 5), or invalid responses (*n* = 1). Of the six non-respondents, one participant reported inability to fully understand the questions as a reason for not completing the questionnaire; another participant reported she did not like the questions and therefore did not complete the survey; and four participants walked away from the questionnaires without any explanation. Among the completed surveys, one was excluded due to indiscriminant responses to the questions, and five were dropped from analysis because the participants did not meet the criteria for eligibility: three respondents were over the age limit, one woman had been with her partner for less than 3 months, and one male had a partner who was currently expecting. Therefore, a total of 220 surveys were included in the final analysis; 109 were completed by men, and 111 were completed by women.

Total sample. Sample characteristics are presented in Table 3.1. The age of all participants included in the analysis ranged from 18 – 30 years (*M* = 23.49, *SD* = 3.61). The average age for participants' partners' ranged from 16 – 43 years with a mean age of 24.5 years (*SD* = 5.32). Most participants had partners that were also Latino (84.1%). The age difference between partners ranged from 8 to 20 years, and the length of time participants had been with their

partners ranged from 3 months to 14 years (*M* = 3.84, *SD* = 3.05). Almost half of the participants were either married (27.3%) or cohabitating (24.5%). Regarding perceived risk for STIs or HIV, on average participants did not consider themselves at risk (*M* = 1.55, *SD* = .67). The majority of this sample (80%) reported having one current sexual partner.

Most participants (48.2%) were born either in the United States (excluding Puerto Rico) or Mexico (42.7%). On average, all participants had been in the United States for 16.51 years (*SD* = 7.5), and their partners had been in the U.S. for almost the same length of time (*M* = 16.97, *SD* = 7.35). The overall level of acculturation was low (57.3%). Regarding education status, the majority of participants were high school graduates with some college experience (60.0%). Most participants were employed (57.7%) and almost one-third were not employed (33.2%). Table 3.1 outlines participant characteristics.

Table 3.1

Demographic and Sexual Behavior Characteristics of Sample

Characteristics	Total sample (*n* = 220) M (SD) or %	Women (*n* = 111) M (SD) or %	Men (*n* = 109) M (SD) or %
Age	23.49 (3.61)	24.28 (3.6)	22.68 (3.4)***
Age of partner	24.55 (5.32)	27.59 (4.97)	21.46 (3.62)***
Partner is Latino	84.1% (*n* = 185)	85.6% (*n* = 95)	82.6% (*n* = 90)
Age difference between partners	-1.07 (4.11)	-3.31 (4.12)	1.21 (2.53)***
Number of years with partner	3.84 (3.05)	4.84 (3.38)	2.82 (2.28)***
Relationship status			
Married	27.3% (*n* = 60)	42.3% (*n* = 47)	11.9% (*n* = 13)
Living together (not married)	24.5% (*n* = 54)	30.6% (*n* = 34)	18.3% (*n* = 20)
Live apart (not married)	48.2% (*n* = 106)	27.0 (*n* = 30)	69.7% (*n* = 76)
Education			
Some high school or less	29.2% (*n* = 64)	37.8% (*n* = 42)	20.4% (*n* = 22)
High school graduate and Some college	60.0% (*n* = 132)	51.4% (*n* = 57)	69.4% (*n* = 75)
College graduate and more	10.5% (*n* = 23)	10.8% (*n* = 12)	10.2% (*n* = 11)
Job status			
Employed	57.7% (*n* = 127)	52.3% (*n* = 58)	63.3% (*n* = 69)
Temporally employed	9.1% (*n* = 20)	9.0% (*n* = 10)	9.2% (*n* = 10)
Not employed	33.2% (*n* = 73)	38.7% (*n* = 43)	27.5% (*n* = 30)
Place of birth			
United States	48.2% (*n* = 106)	37.8% (*n* = 42)	58.7% (*n* = 64)
Mexico	42.7% (*n* = 94)	52.3% (*n* = 58)	33% (*n* = 36)
Central America & the Caribbean	9.1% (*n* = 20)	9.9% (*n* = 11)	8.3% (*n* = 9)
Number of years in	16.51 (7.5)	15.43 (8.02)	17.62 (6.78)***

U.S.
Table 3.1

(continued)

Characteristics	Total sample (*n* = 220) M (SD) or %	Women (*n* = 111) M (SD) or %	Men (*n* = 109) M (SD) or %
Partner's number of years in U.S.	16.97 (7.35)	15.97 (8.32)	17.99 (6.07)***
Partner difference in length of time in U.S.	-0.46 (7.59)	-0.54 (8.04)	-0.37 (7.13)
Sexual behavior			
Birth control	55.9% (*n* = 118)	57.9% (*n* = 62)	53.8% (*n* = 56)
Consistent condom use	20.5% (*n* = 45)	18% (*n* = 20)	22.9% (*n* = 25)
Condom use last sex	36.8% (*n* = 81)	28.8% (*n* = 32)	45% (*n* = 49)**
Number of concurrent sex partners	1.24 (0.96)	1.17 (0.90)	1.30 (1.02)
Multiple concurrent sex partners	9.1% (*n* = 20)	5.4% (*n* = 6)	12.8% (*n* = 14)

***p* < .01. ****p*<.001.

Men. Similar to the overall sample, men's ages ranged from 18 – 30 (*M* = 22.6 years, *SD* = 3.4) (see Table 3.1). Their female partners were younger with an average age of 21.4 years (*SD* = 3.6; range 16 – 32). Most men lived apart from their partners (69.7%) and had been with their partners for an average of 2.8 years (*SD* = 2.28). Regarding perceived risk for STI or HIV infection, men considered themselves to be at low risk (*M* = 1.45, *SD* = .64). Few men (12.8%) reported having more than one sexual partner.

Almost half of the men (58.7%) were born in the United States. Overall, the length of time men had been in the United States ranged from 6 months to 30 years (M = 17.6, SD = 6.78). Men's partners' had also been in the United States for almost the same amount of time (M = 17.9, SD = 6.07). Most men (51.4%, N = 56) had a low level of acculturation. Regarding education and employment, the majority of men were high school graduates (69.4%) and employed (63.3%).

Women. Female participants were older than the men that participated in the study (M = 24.3, SD = 3.6, p = .001) (see Table 3.1). While male participants had younger female partners, the women in this sample had older partners (M = 27.5, SD = 4.9; average age difference = -3.31, SD = 4.12). More women were married (42.3%) or cohabitating (30.6%) and compar*ed to male participants, women had been with their partners for more years (M* = 4.84, SD = 3.38). Compared to men, women also considered themselves to be at greater risk for STI or HIV infection (M = 1.65, SD = .69, p < .05). Also compared to men, fewer women (5.4%) reported having more than one sexual partner (p = .055) and less women (28.8% vs. 45% of men) reported condom use at last sex (p < .01).

Most of the women were born in Mexico (52.3%), and compared to male participants had been in the United States for fewer years (M = 15.4, SD = 8.02, p = .001). Women's partners had been in the United States for almost the same number of years as the women (M = 15.9, SD = 8.32). Regarding level of acculturation, the majority of women (63.1%, N = 70) had a low level of acculturation. Most women were employed (52.3%), and had completed high school and received some college education (51.4%).

Data Collection Procedures

The Institutional Review Board at the University of Michigan and the community health clinic where some recruitment occurred approved procedures used for this study. Potential participants were invited to participate in a brief study to learn more about romantic relationships among Latinos, particularly the communication that occurs between couples. Data collection consisted of participants completing paper-pencil questionnaires in English or Spanish, depending on participant preference. Several items in the questionnaire asked sensitive questions in regarding one's relationship and migratory status; in consideration, no identifying information was collected. Individuals who agreed to participate were required to read the consent form that explained the objective of the study, what their participation entailed, and the benefits and risks of their participation. No consent signatures were requested; completion of the questionnaire was considered confirmation of informed consent to participate in the research.

Participant Recruitment

Recruitment in the clinic included three primary approaches. First, clinic staff were informed about the study and asked to forward potential participants (individuals who met the age criteria and identified as Latino) to the principal investigator (PI) on site for more information about eligibility. Second, the PI also briefly informed eligible participants about the study in private exam rooms. In order to determine who to approach in the exam room, a list of incoming patients for the day and their ages were obtained (this list was shredded at the end of the

day of its intended use). Patients who met the age criteria were approached in the exam room prior to being seen by a provider. All potential participants were informed that their participation was completely voluntary and would have no impact on their services received at the clinic. Third, flyers were also handed to potential participants sitting in waiting areas.

Recruitment outside of the clinic included both active and passive strategies. The study purpose and eligibility criteria were presented on a one-time occasion at a Head Start parent meeting. Efforts were also made to make presentations in settings such as churches, adult-learning centers, and women's group meetings. Recruitment flyers with study contact information were also posted throughout various establishments within the community. A project website was also developed and used to advertise the study. Email was used to help disseminate the website to potential participants. The email was sent to previously contacted leaders in the community (e.g., pastors, youth group leaders, directors of community organizations). Active recruitment also occurred in public venues such as parks, church gatherings, local businesses and restaurants, and a nightclub. Informational flyers were distributed, or potential participants were individually approached to inquire about their interest and eligibility. In the nightclub, the active recruitment of a few individuals generated a snowball effect where other nightclub visitors voluntarily approached the PI to inquire about the study.

Within the clinical setting, all individuals who agreed to participate were given a clipboard and directed to a private area in the clinic to complete the

questionnaire. For persons recruited outside of the clinic, eligible participants were able to complete the questionnaire in a pre-determined private area immediately following recruitment. In instances where couples agreed to participate, each person was given a questionnaire and provided a space away from their partner to complete the questionnaire. The range for completion of the questionnaire was 15 - 90 minutes. All participants were compensated $10 cash for their time.

Measures

Pre-existing measures were used to evaluate occupational and economic stress, sexual relationship power, sexual gender norm stereotypes, relationship commitment, sexual satisfaction, and nonverbal sexual communication. Measures for all intrapersonal variables and sexual health communication were developed for this study.

The cultural decentering process (Werner & Campbell, 1970) was used to translate the interview guide and questionnaires that were not initially available in Spanish. This process differs slightly from direct translation in that the original questionnaires are modified to be more culturally appropriate (in this case for the Latino population) prior to being translated into Spanish. The survey questionnaires were translated into Spanish by the PI. Several other bilingual persons who had not seen the original questionnaires in English were asked to interpret the questionnaires back to English. The PI and a native Spanish speaker reviewed the final questionnaires to verify that both Spanish and English versions of the questionnaires were functionally equivalent.

The questionnaires were pre-tested with a sample of English-speaking only (n = 3) and Spanish-dominant individuals (n = 3) to identify areas of ambiguity. The pretest participants met the inclusion criteria for the study, and they were informed of the purpose of the study and the need to review the questionnaires for clarity. Pretest participants were encouraged to mark any typographical errors and areas of ambiguity. Upon completion of the questionnaire, the PI reviewed the questionnaire with the participants to inquire about any concerns or issues. Feedback from this pretest was used to correct typographical errors and make minor changes such as the wording for the Likert scales.

Post-hoc factor analyses of the measures developed for this study were conducted to explore the presence of subscales and determine their reliability. The reliability of the intrapersonal, verbal, and nonverbal sexual communication scales were examined in an exploratory factor analysis. To evaluate the suitability of the data for factor analysis, the Kaiser-Meyer-Oklin (KMO) and Bartlett's Test of Sphericity were run. The correlation matrix for the subscales showed the majority of the coefficients to be greater than .30 and the factorability of the correlation matrix was further supported by the Bartlett's Test of Sphericity, which reached significance. Also, the KMO values for the attitude towards sexual communication, subjective norms towards sexual communication, verbal sexual communication, and nonverbal sexual communication scales were .78, .79, .73 and .85, respectively; greater than .60 is recommended for a good factor analysis (Tabachnick & Fidell, 2007). The factor analysis was completed with principal

component analysis and direct oblimin rotation. Items with a factor loading of ≤ .30 were eliminated to better facilitate the goal of data reduction. Cronbach's α was used to determine the reliability of the questionnaire (see Table 3.3).

The following measures are consistent with the TGP theoretical model and guided the selection of questionnaires. For each scale, the mean score was calculated and used for analysis. The descriptions and reliabilities of the measures used are summarized in Tables 3.2 – 3.4.

Primary Outcome Measures

Sexual communication with primary partner. Verbal sexual communication refers to discussions that occur between sexual partners about various aspects of sex (i.e., what makes sex pleasurable, condom use, and past sexual partners). The verbal sexual communication scale in this study was adapted from the *Comfort with Sexual Communication Scale* (Deardorff et al., 2008). The *Comfort with Sexual Communication Scale* consists of 8-items, rated with a 5-point Likert scale (1= not at all to 5= very much), that address level of comfort with discussing various sexual issues such as condom use and sexual satisfaction (i.e., preferred sexual positions). The original instrument was developed based on findings with a young Latino population (*N* = 694; average age 18.4 years). Items from the scale were modified for this study to inquire about frequency of talking to one's partner about sexual topics rather than one's comfort level about discussing the sexual topics. For example, the item "How would you feel talking to your partner about the sexual positions you prefer?" was changed to "How often do you talk to your partner about the sexual positions you

prefer?" Higher scores indicated greater frequency of verbal sexual communication between the couple.

Factor analysis of the verbal sexual communication scale resulted in the extraction of 2 factors that explained 55.7% of the variance. The screeplot showed a sharp bend at the second component which suggested a clear two-factor solution. Components 1 and 2 were the only components with eigenvalues greater than 1, 3.19, and 1.27 respectively. The factor loadings made conceptual sense: the two factors were categorized as sexual health communication and sexual satisfaction communication. Sexual health communication included 4 items that addressed talking to one's partner about pregnancy, condom use, and sexually transmitted infections (α = .67). Sexual satisfaction communication included 4 items that addressed issues of sexual satisfaction such as oral sex, sharing sexual fantasies, and preferred sexual positions (α =.69).

Nonverbal sexual communication addresses the actions individuals show their sexual partners to relay information about sexual pleasure, discontent, or desire. The *Sexual Communication Satisfaction Scale* (Wheeless, Wheeless, & Baus, 1984) was used to measure nonverbal sexual communication. The *Sexual Communication Satisfaction Scale* is a 22-item, 7 point Likert scale that evaluates both verbal and nonverbal communication about sexual satisfaction in a relationship. Nine items from this scale were selected to address the nonverbal components of sexual communication. The original response options (strongly agree to strongly disagree) were modified to evaluate whether the participant actually engages in the behavior, and if so, with what frequency. For example, "I

show my partner what pleases me during sex" (1 = rarely, 4 = always). Higher scores indicate greater nonverbal communication between the couple.

The factor analysis resulted in the extraction of 2 factors that explained 59.4% of the variance (eigenvalues 4.19 and 1.15). The bending of the scree plot at the second component validated a two-factor solution. The two factors were categorized as nonverbal sexual communication and attitude towards nonverbal sexual communication. Nonverbal sexual communication included 6 items that addressed how one demonstrates to his/her when he/she is sexual satisfied or what is sexually pleasurable (α = .83). Attitude towards nonverbal sexual communication included 3 items that addressed one's feelings about sexual expression to his/her partner (α = .68). However the factor loadings for 3 items did not make conceptual sense and had similar loadings on both factors. Further review of these 3 items revealed some redundancy with other items; for example "My partner shows me things she/he finds pleasing during sex" and "My partner shows me by the way she/he touches me during sex if he/she likes it". These 3 items were removed and the subsequent factor analysis showed a two-factor solution that explained 65.9% of the variance. Both nonverbal sexual communication and attitude towards nonverbal sexual communication included 3 items and Cronbach's α of .76 and .68, respectively.

A summary of the descriptive analyses of the means of the sexual communication outcome variables can be found in Table 3.2. Mean scores for sexual health communication (*M* = 2.60, *SD* = .85; range .25 – 4.0); sexual satisfaction communication (*M* = 2.68, *SD* = .79; range 0 – 4); and nonverbal

sexual communication (*M* = 3.16, *SD* = 69; range 1 – 4) indicate that participants rarely engaged in sexual health and satisfaction communication and almost always engaged in nonverbal sexual communication. Men and women had significantly different mean scores for sexual health communication. Women's scores were higher (*M* = 2.83, *SD* = .86), indicating that compared to men (*M* = 2.36, *SD* = .79), women engaged in more sexual health communication with their partners.

Table 3.2

Descriptives for Sexual Communication Outcome Variables

Measures (# of items in scale)	Total Sample (*N* = 220) *M* (*SD*) Range α	Women (*n* = 111) *M* (*SD*) Range α	Men (*n* = 109) *M* (*SD*) Range α
Sexual health communication (4 items)	2.60 (0.85) 0.25 – 4 .67	2.83 (0.86) 0.5 – 4 .75	2.36 (0.79)*** 0.25 – 4 .69
Sexual satisfaction communication (4 items)	2.68 (0.79) 0 – 4 .69	2.74 (0.81) 0 – 4 .69	2.63 (0.78) 0.25 – 4 .68
Nonverbal sexual communication (6 items)	3.16 (0.69) 1 – 4 .83	3.27 (0.58) 1.67 – 4 .81	3.13 (0.64) 1 – 4 .85

***$p < .001$.

Secondary Outcome Measures

Sexual behaviors. Consistent condom use, condom use at last sex, use contraception (excluding condoms) and number of current sexual partners were the 4 behaviors assessed.

Consistent condom use and condom use at last sex. Consistent condom use with primary and secondary sexual partners was defined as condom use at all sexual encounters (i.e., How often do you use condoms with your partner? How often do you use condoms with your other partner(s)? 1 - always, 2 - sometimes, and 3 - never). Consistent condom use was dichotomized as consistent or not consistent for the purpose of analysis. Condom use at last sex was evaluated with one item, “Did you use a condom the last time you had sex?”

Contraception. The use of birth control methods was also evaluated because focus group participants shared that part of what determined consistent condom use was hormonal contraceptives. Participants were asked, “Do you or your partner use contraceptives?” If yes, “Which method(s) do you or your partner use?” Participants selected one or more of 8 options (1 - Pills or patches, 2- Depo-Provera, 3 - Intrauterine device, 4 - Withdrawal, 5 - Foam or gel, 6 - Norplant, 7 - Nuva-ring, 8 - Don’t know). Participants’ responses were dichotomized as contraceptive use and no contraceptive use. Participants (n = 9) who responded “Don’t Know” were not included in the dichotomized categories and were excluded from analysis that included contraception use.

Current number of sexual partners. Sexual concurrency refers to having sex with at least one other person while still in a relationship (dating, cohabitating, married) and sexually active with the primary partner. Participants were asked to report the number of concurrent sex partners. Since most (80%) of the participants had only one sexual partner, this outcome variable was collapsed into a categorical variable - ≥ 1 sexual partner (1 – yes, 0 – no).

Frequencies of sexual behavior outcomes can be viewed in Table 3.1. Overall, participants had one current sexual partner (M = 1.24, SD = .96; range 1 – 8). Use of a birth control method other than condoms, was reported by over half of the sample (57.7%). Only 20.5% of the sample reported consistent condom use. Condom use at last sex was reported by 36.8% (n = 81). Condom use at last sex was the only sexual behavior outcome with differences between men and women. Compared to women, men reported condom use at last sex (45% *vs*. 28.8%, $p < .01$).

Antecedents of sexual communication. The following sections describe the measures for antecedents of sexual communication.

Attitudes. Attitude towards sexual communication was measured with a scale (*Attitude Towards Sexual Communication*) that was uniquely developed for this study. The *Health Protective Sexual Communication* scale (van der Straten et al., 1998) and *The Sexual Attitudes Scale* (Villarruel, Zhou, Gallegos, & Ronis, 2010) were employed to develop the items for the *Attitude Towards Sexual Communication* scale. The 13 items in this scale were worded to reflect attitudes towards a behavior; for example, “Asking my partner if he/she has ever been tested for HIV is…” (1 - a very bad idea, 5 - a very good idea).

The first factor analysis for the *Attitude Towards Sexual Communication* scale resulted in the extraction of 4 factors that explained 68.03% of the variance; the factors had eigenvalues of 4.50, 1.32, 1.31, and 1.02. However, the scree plot bended at the 3rd component suggesting a three-factor solution. The analysis was repeated—forcing items to load on 3 factors; this resulted in the 3

factors explaining 59.5% of the variance. The 3 factors were categorized as attitude toward sexual health communication; attitude toward sexual satisfaction communication; and behavioral beliefs. The 5 items in attitude towards sexual health communication addressed how one feels about discussing pregnancy prevention, HIV, condom use, and STIs with his/her sexual partner (α = .74). The 4 items for attitude toward sexual satisfaction communication addressed how one feels about talking to his/her partner about sexual likes and dislikes as well as showing one's partner what feels good sexually (α = .78). The 3 items for the behavioral beliefs factor addressed the reasons why one may not talk to his/her partner about sex (α = .68) (See Table 3.3). Higher scores for each of the subscales indicated more positive attitudes towards sexual health communication and sexual satisfaction communication, and less belief in negative outcomes from talking to one's partner about sex.

Subjective norms. The 15-item *Subjective Norms About Sexual Communication* scale was modeled after the *Sexual Attitudes* (Villarruel, 2010) and *Social Norms about Preventative Behaviors* (Perez-Jimenez, Varas-Diaz, Serrano-Gracia, Cintron-Bou, & Cabrera-Aponte, 2004) scales. The items were written to reflect what one perceives his/her social referents believe about a behavior; for example, "People that are important to me think that I should talk to my partner about using condoms before we have sex" (1 - completely disagree, 5 - completely agree).

The first factor analysis for the *Subjective Norms about Sexual Communication* scale resulted in the extraction of 4 factors that explained

68.63% of the variance; the eigenvalues were 5.0, 2.41, 1.46, and 1.42. However the factor loadings and the scree plot suggested a 3 factor solution. The factor analysis was repeated – forcing a three-factor solution; this iteration revealed an item to have a low communality value -.255 and was removed from the scale. Several iterations were run on these items. The final factor analysis revealed a two-factor solution that explained 59.68% of the variance. The two factors identified were labeled as: perceived partner approval about sexual communication; and subjective norms about sexual communication. Perceived partner approval about sexual communication included 5 items that addressed how one believed his/her partner would feel about discussing issues regarding sex (α = .79), and subjective norms included 7 items that addressed how one believed his/her family and friends would feel about the participant talking to his/her partner about sex or showing one's partner what is sexually pleasurable (α =.89). Higher scores for these subscales reflected more positive perceived partner approval and subjective norms about sexual communication.

A summary of the descriptive analyses of the means of participants' scores for the measures used to evaluate the intrapersonal variables can be found in Table 3.3.

Table 3.3

Descriptives of Intrapersonal Variables

Measures (# of items in scale)	Total Sample (*n* = 220) M (SD) Range α	Women (*n* = 111) M (SD) Range α	Men (*n* = 109) M (SD) Range α
Attitudes towards sexual health communication (5 items)	4.11 (0.71) 1.8 - 5 .74	4.30 (0.66) 2.60 – 5 .76	3.90 (0.72)*** 1.80 – 5 .69
Attitudes towards sexual satisfaction communication (4 items)	4.27 (0.58) 2 – 5 .78	4.43 (0.51) 2.75 – 5 .74	4.11 (0.60)*** 2 – 5 .79
Attitudes towards nonverbal sexual communication (3 items)	3.18 (0.68) 1 – 4 .67	3.24 (0.69) 1 – 4 .73	3.12 (0.67) 1 – 4 .61
Perceived partner approval for sexual communication (5 items)	3.9 (0.65) 1.83 -5.0 .79	3.96 (0.68) 2 – 5 .79	3.76 (0.71)* 2 – 5 .79
Behavioral beliefs (3 items)	2.84 (0.67) 1 – 3.75 .67	3.9 (0.92) 1.33 – 5 .63	3.6 (0.84)* 1.33 – 5 .70
Subjective norms towards sexual communication (7 items)	3.3 (0.90) 1 – 5 .89	3.63 (0.74) 1.86 – 5 .85	2.95 (0.92)*** 1 – 5 .90

*$p < .05$. ***$p < .001$.

The mean scores for attitudes towards sexual health communication (*M* = 4.11, *SD* = .71; range 1.8 - 5.0), attitudes towards sexual satisfaction communication (*M* = 4.27, *SD* = .58; range 2 – 5) and attitudes towards nonverbal sexual communication (*M* = 3.18, *SD* = .68; range 1 – 4), indicate that participants had positive attitudes towards these behaviors. Except for the variable *attitudes towards nonverbal sexual communication*, the average scores for the intrapersonal variables were significantly different between men and women. Women had higher average scores, indicating that women had more positive attitudes about sexual communication compared to men.

Mean scores for perceived partner approval (*M* = 3.9, *SD* = .65; range 1.83 – 5) and subjective norms towards sexual communication (*M* = 3.3, *SD* = .90; range 1 - 5) indicated that participants believed that their partner, family, and friends, would approve of participants' sexual communication (verbal and nonverbal) with their partners. Mean scores for behavioral beliefs (*M* = 2.84, *SD* = .67; range 1.0 – 3.75) indicated that overall, participants had somewhat negative expectations about talking to their partners about sex. Again, men and women had significantly different scores. Women had higher scores for perceived partner approval for sexual communication, subjective norms towards sexual communication, and behavioral beliefs, indicating that compared to men, women perceived greater approval for sexual communication from their partner (*M* = 3.96, *SD* = .68, range 2 - 5), family and friends (*M* = 3.63, *SD* = .74; range 1.86 – 5.0), and less negative expectations (*M* = 3.9, *SD*= .92; range 1.33 - 5) about talking to their partners about sex (Table 4.3).

Independent Variables

Socioeconomic status and stress. Socioeconomic status was measured with single items assessing age, level of educational attainment, employment status, and length of time in the United States. For the purposes of regression analyses, dummy variables were created for education level and employment status. Education had 6 levels which were collapsed into 3 categories: some high school education or less, high school graduate and some college, and college graduate or more. The dummy variables were based on these 3 categories. Similarly, job status had 3 levels; dummy variables were based on these 3 categories.

These variables of socioeconomic status and length of time in the United States also contribute the degree of stress one may feel about his/her economic situation. The *Hispanic Stress Inventory* (HSI) (Cervantes, Salgado de Snyder, and Padilla, 1991) was used measure economic, occupational, and immigration stressors. From the 73-item instrument, 8 items from the occupational and economic stress subscale were selected. Wording of the items were modified to reduce the reading level and decrease potential offensiveness of the questions. Participants who answered the items in the affirmative were asked to evaluate their level of worry about the issue on a 4-point Likert scale (1 = not worried at all, 4 = extremely worried), with a possible mean range score of 0 - 4. Higher scores indicated greater levels of stress.

Relationship power. Relationship power refers to the power dynamics within a heterosexual and intimate relationship. The *Sexual Relationship Power*

Scale (SRPS) was developed to evaluate power and sexual decision-making within heterosexual intimate relationships (Pulerwitz, Gortmaker, & DeJong, 2000). The SRPS 23 item scale, included two subscales, relationship control with statements such as, “My partner will not let me wear certain clothes,” (15 items, 5- point Likert scale – strongly agree to strongly disagree) and decision making dominance with questions such as, “Who usually has more say about whether you have sex?” (7 items, 3-point Likert scale, 1= your partner, 2= both of you equally, and 3= you). Since the two subscales had different Likert scales the score for the entire scale was not summative. Instead, the mean scores of the subscales and the entire SRPS were rescaled to yield total scores between 1 and 5. Higher scores indicate greater power within the relationship. The items for this questionnaire were modified to be applicable to both men and women. Difference in age between partners and difference in length of time in the United States between partners was also measured with single items.

***Social norms*.** Social norms were operationalized in this study as sexual gender stereotypes. Sexual gender stereotypes refer to the gender roles and cultural values that frame the stereotypes about sexual behavior of men and women. The *Sexual Gender Norms Scale* (Pérez-Jiménez, Varas-Díaz, Serrano-García, Cintrón-Bou, & Cabrera-Aponte, 2004) has been previously used with young adult Latinos (Jimenez-Perez, 2004) was used to evaluate participants’ endorsement of sexual stereotypes for men and women. The *Sexual Gender Norms Scale* was a 15 item, 5-point Likert scale (1- strongly agree to 5- strongly

disagree), with a possible mean range score of 1 – 5. Higher scores indicated greater credence in sexual gender norm stereotypes.

Affective attachment. Affective attachment is operationalized as the emotional attachment and investment one has in his/her relationship. Affective attachment was measured with relationship commitment, relationship status, and length of time in the relationship. The *Lund Commitment Scale* was used to evaluate participant's commitment to his or her current romantic partner (Lund, 1985). The 7-point Likert scale was modified to a 5-point Likert scale (1 - not at all to 5 - very much), with a possible mean range score of 1 - 5. Higher scores reflected greater commitment to the relationship. Relationship status was evaluated with a single item. Participants had 3 options to categorize their relationship status – married, cohabitating, and living apart. Again, dummy variables were created for this variable. Participants were also asked to provide the number of years and/or months that they have been with their primary partner.

A summary of the descriptive analyses of the means of participants' scores for the measures used to evaluate the independent variables can be found in Table 3.4. Scores for occupational and economic stress ranged from 0 – 3.38, with an average score of .81 (*SD* = 0.87), indicating low stress. Sexual relationship power scores ranged from .93 – 4.53 (a value of < 1 due to imputation) with a mean of 3.13 (*SD* = 0.55), indicating that overall participants perceived themselves to have high levels of relationship power. Gender stereotype scores ranged from 1.20 – 4.73, the overall average (*M* = 2.96, *SD* =

0.63) indicates that participants did not strongly endorse the sexual gender stereotypes. On average participants were somewhat committed to their relationships, the average relationship commitment score was 3.72 (*SD* = 0.65) (range 1.89 – 5.0). Relationship commitment was the only independent variable with gender differences, where women (*M* = 3.86, *SD* = 0.59; range 2.22 – 5.0) were more committed to their relationships than men (*M* = 3.58, *SD* = 0.67; range 1.89 – 5.0, $p < .001$).

Table 3.4

Descriptives of Independent and Moderator Variables

Measures (# of items in scale)	Total Sample (*N* = 220) *M* (*SD*) Range α	Women (*n* = 111) *M* (*SD*) Range α	Men (*n* = 109) *M* (*SD*) Range α
Independent Variables			
Occupational and economic stress (8 items)	0.81 (0.87) 0 – 3.38 .85	0.85 (0.87) 0 – 3.38 .85	0.77 (0.89) 0 – 3.13 .84
Sexual relationship power scale (23 items)	3.13 (0.55) 0.93 – 4.53	3.17 (0.59) 0.93 – 4.53	3.10 (0.53) 1.29 – 4.29
Power subscale	.86	.89	.80
Dominance subscale	.64	.66	.63
Gender stereotypes (15 items)	2.96 (0.63) 1.20 – 4.73 .79	2.90 (0.73) 1.20 – 4.73 .84	3.02 (0.51) 1.67 – 4.40 .70
Relationship commitment (9 items)	3.72 (0.65) 1.89 – 5.00 .64	3.86 (0.59) 2.22 – 5 .55	3.58 (0.67)*** 1.89 – 5 .74
Moderator Variables			
Perceived risk for STI (3 items)	1.55 (0.67) 1 – 4 .75	1.65 (0.69) 1 – 4 .70	1.45 (0.64)** 1 – 3.67 .81
Acculturation	% (n)	% (n)	% (n)
High	42.7 (94)	36.9 (41)	48.6 (53)
Low	57.3 (126)	63.1 (70)	51.4 (56)

Variables External to the Model

Two moderator variables were also considered in this study: perceived risk for STI/HIV; and acculturation. Both of these variables are measured in research studies that explore sexual behavior among Latino populations. Perceived risk for STI/HIV and acculturation are predicted to interact with sexual communication and sexual communication to influence sexual behavior (Deardorff, Tschann, Flores, & Ozer, 2010; Moore et al., 1995).

Perceived risk for STIs/HIV. Participant's perceived risk for STIs was evaluated with the *Perceived Risk for HIV Index* (Moore et al., 1995). The 3-item, 4-point Likert scale (1 - none to 4 – a lot), was modified for this study to focus on STIs (see Table 3.4). Higher scores indicated greater perceived risk for STIs. Possible mean scores ranged from 1 - 4.

Acculturation. Acculturation was operationalized as one's change in use of language (from Spanish to English) due to regular interaction with the English speaking majority. The *Short Acculturation Scale* (SAS) was used to assess level of acculturation (G. Marin, Sabogal, Marin, Otero-Sabogal, & Perez-Stable, 1987). The SAS evaluates use of language in certain contexts. However, the original acculturation scale contained 12 items that focused on "language," "media," and "ethnic social relations." Using samples representing different age groups and Latinos representing different nationalities, several studies have used the complete 12-item SAS to evaluate predictors of sexual behaviors among Latinos (Rafaelli, et al., Hines & Caetano, 1998; Salabarria-Pena et al., 2003). Both the original and the SAS demonstrated respectable reliabilities within these

samples, Cronbach's alphas ranged from .78 to .91 for the original scale and from .80 to .90 for the SAS. Given the reliability of both measures, the 5–item SAS was selected for this study. One item from the original SAS was modified for this study; the original item reads, "In general, what language do you read or speak?" Conceptually, these are different activities that are context sensitive, therefore 2 separate items were developed to address speaking and reading creating a total of 6 items. The scale contained six items with a 5-point Likert scale (1 – Spanish only to 5 – English only). The scores were categorized into low level of acculturation (scores 1 - 2.99) and high level of acculturation (scores 3 - 5) (see Table 3.4).

Data Analysis

Power Analysis and Regression Procedures

Power analysis for all specific aims was conducted using nQuery Advisor software (Version 7.0). For Aim 1, the direct relationship between sexual communication and three sexual behavior outcome variables (condom use at last sex, consistent condom use, and birth control) was tested with logistic regression. A sample size of 166 was needed in order to achieve 80% power at a two-tailed .05 significance level with an odds ratio of 2.0 when the proportion on the outcome variable was .30, and the squared multiple correlation was .33 between the predictor variables (Hsieh, Block, & Larsen, 1998).

Multiple linear regression was used to address specific aims 2 and 3. For Specific Aim 2, six explanatory variables were used to predict each outcome variable of sexual communication. A sample size of 98 was needed to achieve a

power of .80 with a moderate effect (R^2 = .13) and an alpha at .05. For Specific Aim 3, in order to examine how each concept predicted the sexual communication outcome, four separate regression analyses were completed for each sexual communication variable. Therefore, a maximum of five explanatory variables at a time were used to predict each sexual communication outcome. A sample size of 92 was needed for a power of .80 with a medium effect (R^2 = .13) and an alpha at .05,

Specific Aim 4 used both linear and logistic regression to evaluate the mediator effects of sexual communication on the independent variables and sexual behaviors. The first step for this aim was addressed in Specific Aim 3, where sexual communication variables were regressed on the independent variables. Only the independent variables that showed a direct relationship with the mediator variable were selected for the next step. The direct relationships between the selected independent variables on the sexual behavior outcomes were evaluated using linear and logistic regression, the mediator effects of sexual communication also used linear and logistic regression. A sample size of 220 provided adequate power to achieve Specific Aims 1 – 4.

Specific Aim 5 addressed specific aims 1 - 4 in each sex group (men = 109, women = 111). The sample sizes of each group provided sufficient power to address specific aims 2 - 4 only. For Specific Aim 1, due to the correlations between the predictor variables, the effect of each sexual communication variable on the dichotomous sexual behavior outcomes (consistent condom use, condom use at last sex, and contraception use) had to be evaluated individually.

A sample size of 109 men achieved 79% power at a two-tailed alpha = .05 significance to detect a change in the dependent variable that corresponded to an odds ratio of 2.0, when the proportion of the outcome variable was .30. For these same conditions, a sample size of 111 women achieved 80% power.

Data Screening

In order to ensure accuracy of the data and data analysis, a data dictionary was established and data were double-entered in PASW Statistics (Version 19). The double-entered data were then compared using SAS (Version 9.2) to screen for any inconsistencies. All inconsistencies were evaluated using the original questionnaires. The data was then evaluated for missing data and inspected for deviations from normality.

Missing data. Part of data collection included reviewing the questionnaires for missing data prior to leaving the participant. Of the 125 variables, no variable had more than 5 missing values. Further analysis of the missing data was conducted to evaluate potential demographic differences between the 46 cases with missing data and those without. T-tests and chi-square analyses that there were no differences in age (t = .17, df = 210, p = .63) length of time in the United States (t = .05, df = 210, p = .89), and employment (χ^2 = .04, df = 1, p = .87). However, having an educational level of a high school degree or less was associated with having missing data in the questionnaire (χ^2 = 5.5, df = 1, p = .03). These findings suggest that the data were not missing completely at random, but since no more than 5 cases per variable the assumption is that the values missing were indeed missing at random. A

common procedure for handling missing values is to delete the cases with the missing variables. However, this procedure would create a loss of 46 cases. For this reason, sequential regression multivariate imputation was used to estimate missing data (Rahunathan, Lepkowski, Van Hoewyk, & Solenberger, 2001).

Evaluation of assumptions. The assumptions of normality, linearity, and homoscedasticity were evaluated for each regression model using the histograms, P-P plots, and residual plots generated by the regression analyses. The sexual communication outcome variables were regressed on the independent variables for socioeconomic status and stress, relationship power, social norms, and affective attachment. Although the normal Q-Q plot showed that the residuals of the data approximated a straight line, in some regression models particularly those involving sexual satisfaction communication and nonverbal sexual communication, the histograms suggested that the data were negatively skewed. Where the data were negatively skewed, the dependent variable was transformed using the reflect and square root transformation (Tabachnick & Fidell, 2007), and the regression analyses were repeated with the transformations of the outcome variables. Evaluation of the P-P and residual plots with the transformed outcome variables showed that normality was improved. Data from regression analyses using transformed variables were compared with data from untransformed outcome variables and the differences between the two analyses were minimal. Given that only some regression models violated assumptions of normality, and results from transformed variables

did not differ from results from untransformed variables, untransformed outcome variables were used.

Outliers were evaluated using Mahalanobis and Cooks distance (Tabachnick & Fidell, 2007). Using an alpha level of .001, two outliers were found among all cases (*N* = 220). In order to evaluate the influence of these two outliers on the regression model, the Cooks distance was considered. A Cooks distance of >1 should be considered for deletion (Tabachnick & Fidell 2007). In this study, the maximum Cook's distance was .095. The two extreme cases were found to be due to the age difference between the participant and his/her respective partner. Given the number of cases, the reason for the outliers, and the Cook's distance, these two cases were not removed from the analyses.

Specific Aim Analysis

Specific Aim 1. Examine whether sexual communication (verbal sexual health communication, verbal sexual satisfaction communication, and nonverbal communication) predicts sexual behavior (consistent condom use, condom use at last sex, contraceptive use, multiple sexual partners).

Dichotomous sexual behavior outcomes (consistent condom use, condom use at last sex, contraception use, and number of sexual partners) were regressed on sexual communication variables (sexual health communication, nonverbal sexual communication, and sexual satisfaction communication) using logistic regression.

Where there was a relationship between the sexual communication and sexual behavior, a moderator effect of perceived risk for STI was explored. In

order to examine the moderator effects of perceived risk for STIs on the association between sexual communication and sexual behavior, hierarchical logistic regression was used. Interaction terms were created by multiplying the moderator variable (perceived risk for STIs) by the independent variables. The interaction term was then entered into the model. A moderation effect was considered if the interaction term explained a significant amount of the variance in sexual behavior variables. Prior to entering the independent variables and interaction terms, the moderator variable and independent variables were mean centered in order to avoid multicollinearity between the interaction term and the independent variables.

Specific Aim 2. Examine whether intrapersonal variables (perceived partner approval of sexual communication, attitudes towards sexual communication, behavioral beliefs, and subjective norms about sexual communication) predict sexual communication.

Multiple linear regression was used to examine the relationships between intrapersonal variables (perceived partner approval of sexual communication, attitudes towards sexual communication, behavioral beliefs, and subjective norms about sexual communication) and sexual communication (sexual health communication, nonverbal sexual communication, and sexual satisfaction communication).

Specific Aim 3. Examine whether socioeconomic status and stress (level of education, employment status, and occupational and economic stress); relationship power (sexual relationship power, age difference between partners,

and difference in length of time in the country); affective attachments (relationship duration, relationship status, and relationship commitment); and social norms (gender norm stereotypes) predict sexual communication.

Multiple linear regression was used to examine the relationships between socioeconomic (level of education, employment status, and economic stress), socio-cultural (gender norm stereotypes), interpersonal variables (sexual relationship power, age difference between partners, difference in length of time in the country, relationship duration, relationship status, and relationship commitment), and sexual communication variables. In order to evaluate which concepts were most predictive of sexual communication, four separate multiple regressions were conducted for each concept of socioeconomic status and stress, relationship power, social norms, and affective attachment.

Where there was a relationship between the independent variable and sexual communication, the moderator effect of acculturation was explored. Hierarchical multiple regression was used to examine the moderator effects of acculturation on the association between the independent variables and sexual communication. The product terms were created by multiplying the dichotomous moderator variable (acculturation) with the independent variable. The interaction term was then entered into the model; if the interaction term was a significant contributor to the model a moderator effect was considered. .

Specific Aim 4. Examine whether sexual communication mediates the relationship between socioeconomic status and stress; relationship power; affective attachments; and social norms, respectively, and the main outcome of

sexual behavior (consistent condom use, condom use at last sex, contraceptive use, number of concurrent sexual partners).

Several linear and logistic regression analyses were conducted to examine whether sexual communication variables mediated the relationship between socioeconomic (level of education, employment status, and economic stress), social norms (gender norm stereotypes), and interpersonal variables (sexual relationship power, age difference between partners, difference in length of time in the country, relationship duration, relationship status, and relationship commitment) and sexual behaviors. First, sexual communication variables were regressed on the independent variables using multivariate regression models (addressed in Specific Aim 3). Logistic regression was then conducted to determine the direct effects of the independent variables on the sexual behaviors (condom use at last sex, and consistent condom use). Another logistic regression was conducted to determine the effects of the independent variables with the mediator variable on sexual behaviors. If the variance in the sexual behaviors, explained by the independent variables and the mediator, was greater than the variance in sexual behavior explained only by the independent variables mediation was suspected.

Specific Aim 5. Examine the gender differences for Specific Aims 1 – 4. The data were grouped by sex, and the analyses for Specific Aims 1-4 were repeated for each group. Statistical analyses for Specific Aim 1 were modified when tested for each sex group. Due to insufficient power to test the relationship between sexual communication on sexual behavior using multiple regression,

analyses were conducted using simple logistic regression. Each dichotomous sexual behavior variable was regressed on each sexual communication variable.

Chapter 4

Results

In this chapter, the study results are presented for each specific aim. The results for the total sample are presented for total sample first, followed by the specific aim results for each gender.

Results by Specific Aim

Specific Aim 1

Examine whether sexual communication (verbal sexual health communication, verbal sexual satisfaction communication, and nonverbal communication) predicts sexual behavior (consistent condom use, condom use at last sex, contraceptive use, multiple concurrent sexual partners).

Logistic regression was used to examine the influence of sexual communication on all sexual behaviors. The models for consistent condom use, condom use at last sex, contraceptive use, and multiple concurrent sexual partners included three predictors: sexual health communication, sexual satisfaction communication, and nonverbal sexual communication. The full model significantly predicted consistent condom use χ^2 (3, N = 220) = 14.92, p < .05 (Table 4.1); however, sexual health communication was the only significant individual predictor at the 0.05 level. Greater report of sexual health communication was associated with almost twice the odds of consistent condom use (OR = 1.9, p = .007).

The full model also explained condom use at last sex χ^2 (3, N = 220) = 10.78, p = .013 (see Table 4.2); for this behavior nonverbal sexual communication was the only significant predictor. Every one unit increase in nonverbal sexual communication was associated with 54% lower odds of having used condoms at last sex (OR = .46, p = .008). Regarding number of concurrent sexual partners, sexual communication was associated with having multiple sexual partners (χ^2 (3, N = 220) = 11.72, p < .05); in this model sexual health communication was the only significant individual predictor. Every one unit increase in sexual health communication was associated with 49% lower odds of having more than 1 concurrent sexual partner (OR = .51, p < .05) (see Table 4.3). Finally, the sexual communication model did not explain the use of contraception (χ^2 (3, N = 220) = 1.31, p = .726) (see Table 4.4).

Moderator effects. Since, sexual health communication was associated with consistent condom use and multiple concurrent sex partners, and nonverbal sexual communication was associated with condom use at last sex, respectively, further analysis was conducted to examine whether perceived risk for STIs affected the relationship between the sexual communication and sexual behavior variables.

The moderator effect of perceived risk for STI on the relationship between sexual health communication and consistent condom use was examined (see Table 4.5). The chi-square values were used to determine whether a moderator effect had occurred. Compared to the model without the moderator (χ^2 (2, N = 220) = 2.73, p = .25), the model with the moderator (χ^2 (3, N = 220) = 2.73, p =

.45) was not a stronger or significant model, therefore perceived risk for STIs did not have a moderator effect.

The moderator effect of perceived risk for STIs on the association between sexual health communication and multiple concurrent sex partners was also examined (see Table 4.6). Although the model with the interaction term was significant (χ^2 (3, *N* = 220) = 24.1, p < .001), the interaction term was not a significant contributor to the model (*OR* = .89, *p* = .73). These results suggest that, perceived risk for STIs was not a moderator for the relationship between sexual health communication and multiple concurrent sex partners.

The moderator effect of perceived risk for STIs on the association between nonverbal sexual communication and condom use at last sex was also examined (see Table 4.7). Perceived risk for STIs did not have a moderator effect. The interaction term was not significant (*OR* = 1.03, *p* = .93), in addition, compared to the model without the moderator (χ^2 (2, *N* = 220) = 9.29, *p* = .01), the model with the moderator (χ^2 (3, *N* = 220) = 9.29, *p* = .03) was not a stronger or more significant model.

Gender differences. The following section reports results by gender for Specific Aim 1.

Men. Sexual satisfaction communication (*OR* = .52, *p* = .03) and nonverbal sexual communication (*OR* = .49, *p* = .04) were associated with consistent condom use (see Table 4.8). For men, every one unit increase in sexual satisfaction communication was associated with 48% lower odds of consistent condom use. Similarly, every one unit increase in nonverbal sexual

communication was associated with 51% lower odds of consistent condom use. Sexual health communication was not associated with consistent condom use. Also, sexual communication variables did not predict any other sexual behavior in men. Neither condom use at last sex (see Table 4. 9), contraceptive use (see Table 4.10), or multiple sex partners (see Table 4.11) were associated with sexual communication.

Women. Sexual health communication was the strongest predictor of consistent condom use (*OR* = 2.07, *p* =.04) (see Table 4.12). Women who engaged in sexual health communication had odds twice as high as those with less sexual health communication, of using condoms consistently. Condom use at last sex, was most predicted by nonverbal sexual communication (*OR* = .36, *p* =.007) (see Table 4.13). These results indicate that women who engaged in nonverbal sexual communication had 64% lower odds of condom use at last sex. Sexual communication variables were not associated with contraception use (Table 4.14)

Sexual communication also predicted multiple concurrent sex partners. Sexual health communication (*OR* = .19, *p* < .01) and sexual satisfaction communication (*OR* = .29, *p* < .01) were the strongest predictors of multiple concurrent sex partners (see Table 4.15). Women who engaged in sexual health communication had 81% lower odds of having more than one concurrent sex partner. Similarly, women who engaged in more sexual satisfaction communication had 71% lower odds of having more than one concurrent sex partner.

Specific Aim 2

Examine whether intrapersonal variables (perceived partner approval of sexual communication, attitudes towards sexual communication, behavioral beliefs, and subjective norms about sexual communication) predict sexual communication. Multiple linear regression was used to address this specific aim.

Three separate regression analyses were conducted for each outcome variable of sexual health communication, sexual satisfaction communication, and nonverbal sexual communication. The full model for each outcome variable included six predictors: attitudes towards sexual health communication, attitudes towards sexual satisfaction communication, attitudes towards nonverbal sexual communication, perceived partner approval for sexual communication, behavioral beliefs, and subjective norms towards sexual communication.

The full model explained 15% of the variance in sexual health communication $F(6, 219) = 7.41$, $p < .001$ (see Table 4.16). The strongest predictors in the model included attitudes towards sexual health communication ($\beta = 0.17$, $p < .05$) and subjective norms towards sexual communication ($\beta = 0.22$, $p = .001$). Men and women who reported more positive attitudes towards sexual health communication and expected approval from family and friends about sexual communication with their partner reported more sexual health communication.

The full model explained 35.8% of the variance in sexual satisfaction communication, $F(6, 219) = 21.37$, $p < .001$ (see Table 4.17). The strongest predictors included attitudes towards sexual satisfaction ($\beta = 0.32$, $p < .001$) and

attitudes towards nonverbal sexual communication (β = 0.37, p <.001). These results suggest that more positive attitudes towards sexual satisfaction and nonverbal sexual communication were associated with more reports of sexual satisfaction communication.

The full model explained 41.4% of the variance in nonverbal sexual communication $F(6, 219) = 26.77$, p = <.001 (see Table 4.18). The significant predictors in the model were attitudes towards sexual satisfaction communication (β = 0.36, p = .000) and attitudes towards nonverbal sexual communication (β = 0.47, p = <.001). Therefore, those who had more positive attitudes towards sexual satisfaction communication and nonverbal sexual communication had more nonverbal sexual communication.

Gender differences. The following section reports results by gender for Specific Aim 2.

Men. The full model explained 38.8% of the variance in sexual satisfaction communication among men, $F(6,108) = 12.41$, p <.001 (see Table 4.19). The strongest predictors in the model included attitudes toward sexual satisfaction communication (β = 0.41, p <.001) and attitudes towards nonverbal sexual communication (β = 0.41, p <.001). Among men, more positive attitudes towards sexual satisfaction communication and nonverbal sexual communication were associated with greater sexual satisfaction communication with one's partner.

The full model also explained 36% of the variance in nonverbal sexual communication $F(6,108) = 11.14$, p < .001 (see Table 4.20). The strongest predictors in the model included attitudes toward sexual satisfaction

communication (β = 0.41, p = <.001) and attitudes towards nonverbal sexual communication (β = 0.51, p <.001). The findings indicate that among men, more positive attitudes towards sexual satisfaction and nonverbal sexual communication was associated with more nonverbal sexual communication. The full model did not explain sexual health communication among men, F(6, 108) = 2.14, p = .055 (see Table 4.21).

Women. The full model explained 18.9% of the variance in sexual health communication, F(6, 110) = 5.28, p = <.001 (see Table 4.22). The strongest predictors in the model included attitudes towards sexual health communication (β = 0.26, p = .014), attitudes toward nonverbal sexual communication (β = 0.25, p = .016), and subjective norms towards sexual communication (β = 0.29, p = <.001). These findings indicate that among women, more positive attitudes towards sexual health communication and nonverbal sexual communication as well as greater expected approval from family and friends about sexual communication with their partner, was associated with more sexual health communication.

The full model explained 32.8% of the variance in sexual satisfaction communication F(6, 110) = 9.95, p =<.001 (see Table 4.23). The strongest predictors included attitudes towards sexual satisfaction communication (β = 0.30, p = .003) and attitudes towards nonverbal sexual communication (β = 0.31, p = .001). These results indicate that more positive attitudes towards sexual satisfaction communication and nonverbal sexual communication, was associated with more sexual satisfaction communication.

The full model also explained 48% of the variance in nonverbal sexual communication [$F(6, 110) = 17.90$, $p = <.001$] (see Table 4.24). The strongest predictors in the model included attitudes towards sexual satisfaction communication ($\beta = 0.35$, $p = .000$) and attitudes towards nonverbal sexual communication ($\beta = 0.44$, $p = .000$). These findings suggest that more positive attitudes towards sexual satisfaction communication and nonverbal sexual communication are associated with more nonverbal sexual communication among women.

Specific Aim 3

Examine whether socioeconomic status and stress (level of education, employment status, and economic stress), relationship power (sexual relationship power, age difference between partners, and difference in length of time in the country), affective attachments (relationship duration, relationship status, and relationship commitment) and social norms (gender norm stereotypes) predict sexual communication (i.e., verbal sexual health communication, verbal sexual satisfaction communication, and nonverbal communication).

Multiple linear regression was performed to address this aim. For each of the three sexual communication outcomes, four separate regression analyses were conducted. Each of the regression models addressed one of the following concepts: socioeconomic status and stress, relationship power, social norms, or affective attachment.

Socioeconomic status and stress and sexual communication. The full model for socioeconomic status and stress and the selected sexual communication variable contained 5 predictors: occupational and economic stress, education (2 levels), and employment (2 levels). The full model explained 4% of the variance in sexual health communication, $F(5, 218) = 2.80$, $p = .018$, however none of the individual predictors in the model were significant (see Table 4.25). The full model did not explain sexual satisfaction communication [$F(5, 218) = 2.10$, $p = .066$; Adjusted $R^2 = .025$] (see Table 4.26) or nonverbal sexual communication [$F(5, 218) = .637$, $p = .672$; Adjusted $R^2 = -0.008$] (see Table 4.27).

Relationship power and sexual communication. The full model for relationship power and each sexual communication variable included three predictors: sexual relationship power, partner difference in length of time in the United States, and age difference between partners. The full model explained 4% of the variance in sexual health communication, $F(3, 219) = 4.03$, $p = .008$ (see Table 4.28). The most significant predictor of sexual health communication in the model was age difference between partners ($\beta = -0.16$, $p = .019$), indicating that for every one unit increase in age difference between partners, expected sexual health communication decreased by .03, after controlling for all other variables in the model. The greater the age difference between the participant and his/her partner, the less the participant engaged in sexual health communication.

The full model also explained 4.7% of the variance in nonverbal sexual communication, $F(3, 219) = 4.56$, $p = .004$ (see Table 4.29). The strongest

predictor of the model was sexual relationship power (β = 0.24, p = .003), indicating that for every one unit increase in sexual relationship power, expected nonverbal sexual communication increased by 0.26 after controlling for all other variables in the model. The more sexual decision making power and dominant a person felt in their relationship the more he/she engaged in nonverbal sexual communication. The full model did not explain sexual satisfaction communication, $F(3, 219) = 1.73$, p = .161 (see Table 4.30).

Moderator effects. Age difference between partners was the only significant relationship power predictor of sexual health communication. Age difference between partners (mean centered) and acculturation were entered into the model first, followed by the interaction term. The interaction term was not significant (β = .06, p = .48) and did not improve the significance of the model (F change p = .48) (see Table 4.31). These results indicate that acculturation is not a moderator between age difference between partners and sexual health communication.

Sexual relationship power was the only relationship power variable that predicted nonverbal sexual communication. The moderator effect of acculturation between sexual relationship power and nonverbal sexual communication was also examined. Sexual relationship power (mean centered) and acculturation were entered into the model first, followed by the interaction (see Table 4.32).The interaction term was not significant (β = .03, p = .77) and did not improve the regression model (F change p = .77). These results indicate that acculturation is

not a moderator of the relationship between sexual relationship power and nonverbal sexual communication.

Social norms and sexual communication. The model for gender norm stereotypes and each sexual communication variable only included 1 predictor: sexual gender norm stereotypes. Gender norm stereotypes explained 3.5% of the variance in sexual health communication (β = -0.20, p = .003), $F(1, 219)$ = 9.02, p = .003 (see Table 4.33). Gender norm stereotypes had a negative influence on sexual health communication. The more participants endorsed sexual gender norm stereotypes the less they engaged in sexual health communication. Gender norm stereotypes did not predict sexual satisfaction communication [$F(1, 219) = 1.43$, p = .233] (see Table 4.34) or nonverbal sexual communication [$F(1, 219) = 0.097$, p = .756] (see Table 4.35).

Moderator effect. The moderator effect of acculturation on the relationship between gender norm stereotypes and sexual health communication was examined using hierarchical regression. Gender norm stereotypes (mean centered) and acculturation were entered into the model, followed by the interaction. The interaction term was significant (β = 1.14, $p < .001$), it increased the adjusted R^2 (.05 to .09) and improved the significance of the model (F change $p < .001$) (see Table 4.36). These results suggest that acculturation was a moderator of the relationship between gender norm stereotypes and sexual health communication.

Figure 2 illustrates how acculturation moderates this relationship. For both groups of high and low-level acculturation, gender norm stereotypes were

negatively associated with sexual health communication. To test whether the slopes were significantly different from each other, the moderation analysis was repeated using the high-level acculturation group as the reference. When low-level of acculturation was the reference group, the regression weight was significantly different from zero (β = 0.47, p < .001), but not when high-level of acculturation was the reference group (β = 0.14, p = .32). These results suggest that the effect of gender norm stereotypes on sexual health communication was significant for those with a low-level of acculturation, but not those with a high-level of acculturation.

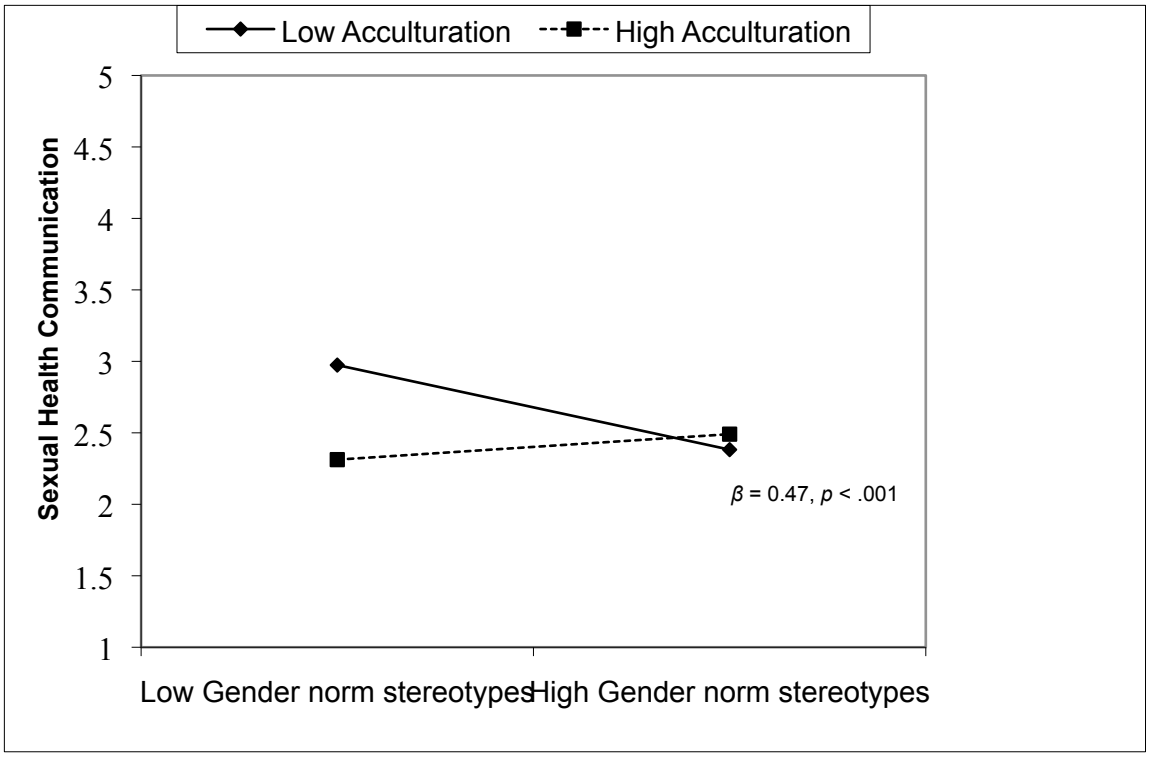

Figure 2. Interaction of acculturation on the relationship between gender norm stereotypes and sexual health communication.

Affective attachment and sexual communication. The full model for affective attachment and each sexual communication variables included 4

predictors: relationship duration, relationship commitment, married, and cohabitating. The full model explained 6.9% of the variance in sexual health communication, $F(4, 219) = 5.03$, $p = .001$ (see Table 4.37). The most significant predictor in the model was relationship duration ($\beta = 0.17$, $p = .036$). The longer participants were with their partners the more they engaged in sexual health communication.

The full model also explained 4.7% of the variance in sexual satisfaction communication $F(4, 219) = 3.67$, $p = .006$ (see Table 4.38). In this model, relationship commitment was the most significant predictor ($\beta = 0.24$, $p = .001$) of sexual satisfaction communication. The more committed participants were to their relationship the more they engaged in sexual satisfaction communication.

Lastly, the full model explained 5% of the variance in nonverbal sexual communication $F(4, 219) = 3.90$, $p = .004$ (see Table 4.39). In this model, relationship commitment was also the most significant predictor of nonverbal sexual communication ($\beta = 0.23$, $p = .001$). The more participants were committed to their relationship the more they engaged in nonverbal sexual communication.

Moderator effects. Length of time in the relationship was the only affective attachment predictor of sexual health communication. The moderator effect of acculturation on the relationship between length of time in the relationship and sexual health communication was examined using hierarchical regression. Length of time in the relationship (mean centered) and acculturation were entered in the first block, followed by the interaction term. Inclusion of the

interaction term increased the adjusted R^2 (.08 to .10) but was not significant (β = -0.15, p = .076) (see Table 4.40). These results suggest that acculturation was not a moderator of the relationship between length of time in the relationship and sexual health communication.

Relationship commitment was the only affective attachment variable that predicted sexual satisfaction communication. Although the interaction term increased the adjusted R^2 (.05 to .06), it was not a significant predictor (β = -0.14, p = .112) (see Table 4.41). These results suggest that acculturation did not moderate the relationship between relationship commitment and sexual satisfaction communication.

Relationship commitment was also the only affective attachment predictor for nonverbal sexual communication. The interaction term was not significant (β = -0.15, p = .104) and did not change the amount of variance explained by the model (see Table 4.42). These results suggest that acculturation was not a moderator of the relationship between relationship commitment and nonverbal sexual communication.

Gender differences. The following section reports results by gender for Specific Aim 3.

Socioeconomic status and stress and sexual communication. The full model for socioeconomic status and stress and each sexual communication variable, contained five predictors: occupational and economic stress, education, employment.

Men. The full model did not explain sexual health communication *[F*(5, 107) = 1.02, *p* = .412] (see Table 4.43), sexual satisfaction communication [*F*(5, 107) = .946, *p* = .455] (see Table 4.44), and nonverbal sexual communication [*F*(5, 107) = .299, *p* = .912] (see Table 4.45).

Women. The full model explained 8.6% of the variance in sexual health communication [*F*(5, 110) = 3.05, *p* = .013] (see Table 4.46). Occupational and economic stress was the strongest predictor in the model (*β* = 0.24, *p* = .015). This result suggests that greater occupational and economic stress was associated with more sexual health communication among women. Sexual satisfaction communication [*F*(5, 110) = 1.32, *p* = .261] (see Table 4.47) and nonverbal sexual communication [*F*(5, 110) = .365, *p* = .872] (see Table 4.48), however, were not explained by the model.

Relationship power and sexual communication. The full model for relationship power and each sexual communication variable included three predictors: sexual relationship power, partner difference in length of time in the United States, and age difference between partners.

Men. The full model did not explain sexual health communication [*F*(3, 108) = 4.03, *p* = .844] (see Table 4.49); sexual satisfaction communication [*F*(3,108) = .413, *p* = .744] (see Table 4.50); or nonverbal sexual communication [*F*(3, 108) = 1.75, *p* = .161] (see Table 4.51).

Women. The full model explained 7.4% of the variance in sexual health communication, *F*(3,110) = 3.91, *p* = .011 (see Table 4.52). The significant predictors in the model included sexual relationship power (*β* = 0.28, *p* = .004)

and partner difference in length of time in the United States (β = -0.24, p = .004). These findings suggest that a greater sentiment of sexual decision making power and dominance in a relationship was associated with more sexual health communication. However, less time in the United States relative to her partner was associated with less sexual health communication.

The relationship power model also explained 5.9% of the variance in nonverbal sexual communication [F(3,110) = 3.29, p = .023] (see Table 4.53). The most significant predictor in the model was sexual relationship power (β = 0.29, p = .003). These results indicated that a greater sentiment of sexual decision making power and dominance in a relationship was associated with more nonverbal sexual communication. The relationship power model did not explain sexual satisfaction communication [F(3, 110) = 1.68, p = .176] (see Table 4.54).

Social norms and sexual communication. The model for gender norm stereotypes and each sexual communication variable only included 1 predictor: sexual gender norm stereotypes.

Men. Gender norm stereotypes did not predict sexual health communication [F(1, 108) = .001, p = .969] (see Table 4.55); sexual satisfaction communication [F(1, 108) = .019, p = .890] (see Table 4.56); or nonverbal sexual communication [F(1, 108) = .019, p = .890] (see Table 4.57).

Women. Gender norm stereotypes explained 8% of the variance in sexual health communication among women [F(1, 110) = 10.51, p = .002] (see Table 4.58). Gender norm stereotypes had a negative effect on sexual health

communication (β = -0.29, p = .002). This result suggests that greater belief in sexual gender norm stereotypes is negatively associated with sexual health communication. Gender norm stereotypes did not predict sexual satisfaction communication [F(1, 110) = 2.04, p = .155] (see Table 4.59) or nonverbal sexual communication [F(1, 110) = 2.05, p = .155] (see Table 4.60).

Affective attachment and sexual communication variables. The full model for affective attachment and each sexual communication variables included 4 predictors: relationship duration, relationship commitment, married, and cohabitating.

Men. The full model explained 5.2% of the variance in sexual satisfaction communication [F(4,108) = 2.47, p = .049] (see Table 4.61). The significant predictor in the model was relationship commitment (β = 0.31, p = .002). Among men, greater commitment to their relationships was associated with more sexual satisfaction communication. Affective attachment did not explain sexual health communication (see Table 4.62) or nonverbal sexual communication (see Table 4.63) in men.

Women. The full model explained 5.7% of the variance in sexual health communication [F(4,110) = 2.65, p = .037] (see Table 4.64), however none of the individual predictors were significant. The model did not explain sexual satisfaction communication [F(4,110) = 1.31, p = .270] (see Table 4.65) or nonverbal sexual communication [F(4,110) = 1.88, p = .120] (see Table 4.66).

Specific Aim 4

This aim was to examine whether sexual communication (verbal sexual health communication, verbal sexual satisfaction communication, and nonverbal communication) mediates the relationship between socioeconomic, socio-cultural, and interpersonal variables and the sexual behavior outcomes (consistent condom use, condom use at last sex, contraceptive use, multiple concurrent sexual partners).

Results from addressing previous aims were used in the mediation analyses. Specific Aim 1 showed that sexual health communication predicted consistent condom use and multiple concurrent sex partners; nonverbal sexual communication predicted condom use at last sex. Therefore condom use behavior variables and multiple concurrent sex partners were the selected dependent variables for mediation analyses, and sexual health communication and nonverbal sexual communication were the selected mediator variables.

Mediation effects of sexual health communication. Specific Aim 3 results indicated that age differences between partners, sexual gender norm stereotypes, and length of time in the relationship most predicted sexual health communication. Based on these findings, logistic regression analyses were conducted to examine whether age differences between partners, sexual gender norm stereotypes, and length of time in the relationship had direct effects on consistent condom use (see Table 4.67) and multiple concurrent sex partners (see Table 4.68). Length of time in the relationship was the only independent variable that had a significant direct effect (b = -0.18, p = .008) (see Table 4.67).

In order to evaluate if sexual health communication mediated the relationship between length of time in the relationship and consistent condom use, consistent condom use was regressed on relationship duration and sexual health communication. Results indicated that when controlling for length of time in the relationship, sexual health communication had a significant effect on consistent condom use (*OR* = 1.7, *p* = .016). When controlling for length of time in the relationship, respondents who engaged in sexual health communication had odds almost twice as high of using condoms consistently. The effect of length of time in the relationship on consistent condom use when controlling for sexual health communication (*β* = - 0.23, *p* = .002) did not decrease compared to sexual health communication was not in the model (*β* = -0.18, *p* = .008), which suggests that sexual health communication was not a mediator. Regarding multiple concurrent sex partners, none of the independent variables predicted the behavior, therefore sexual health communication cannot be considered as a mediator.

Mediation effects of nonverbal sexual communication. Specific Aim 3 results indicated that sexual relationship power and relationship commitment most predicted nonverbal sexual communication. Based on these findings logistic regression analyses were conducted to examine whether sexual relationship power and relationship commitment had direct effects on condom use at last sex. Relationship commitment was the only independent variable that had a direct effect on condom use at last sex (*b* = -0.70, *p* = .001) (see Table 4.69). In order to evaluate if nonverbal sexual communication mediated the relationship

between relationship commitment and condom use at last sex, condom use at last sex was regressed on relationship commitment and nonverbal sexual communication. Results indicated that when controlling for relationship commitment, nonverbal sexual communication was associated with condom use at last sex (*OR* = .56, *p* = .02). Every one unit increase in nonverbal sexual communication was associated with a 44% less odds of condom use at last sex. The effect of relationship commitment on condom use at last sex when controlling for nonverbal sexual communication did decrease (*β* = -0.58, *p* = .012) compared to when nonverbal sexual communication was not in the model (*β* = -0.78, *p* = .001) indicating that nonverbal sexual communication may be a mediator between relationship commitment and condom use at last sex.

Gender differences. The following section reports results by gender for Specific Aim 4.

Men. Results from previous aims indicate that consistent condom use was the only sexual behavior predicted by sexual satisfaction communication. Sexual satisfaction communication in men was most predicted by relationship commitment. In order to examine whether sexual satisfaction mediates the relationship between relationship commitment and consistent condom use, consistent condom use was regressed on relationship commitment. Results indicated that there was no relationship between relationship commitment and consistent condom use (*b* = 0.36, *p* = .273) (see Table 4.70). Since there is no relationship between the independent variable (relationship commitment) and the

dependent variable (consistent condom use), sexual satisfaction communication cannot be a mediator.

Women. Results from previous specific aims indicate that consistent condom use, condom use at last sex, and number of concurrent sexual partners were the sexual behaviors explained by sexual health communication. Sexual health communication was predicted by the independent variables of occupational and economic stress, sexual relationship power, partner difference in length of time in the United States, and gender norm stereotypes. In order to examine whether sexual health communication was a mediator between the independent variables and the sexual behavior outcomes, multiple linear and logistic regression analyses were used to determine the direct effects between the independent variables and the sexual behavior outcomes. None of the independent variables had a direct effect on the sexual behaviors (see Table 4.71 and 4.72); therefore sexual health communication is not a mediator. Similarly, nonverbal sexual communication was evaluated as a mediator between sexual relationship power and condom use at last sex. However, there was no relationship between condom use at last sex and sexual relationship power which suggests that nonverbal sexual communication was not a mediator (see Table 4.73).

Tables 4.1 to 4.73 outline the complete set of results addressed in Chapter 4. Figure 3 summarizes the direction of relationships among the model predictors and outcomes. Reviewing the figure from left to right, socioeconomic, socio-cultural, and interpersonal variables predicted the sexual communication

variables. In addition, the relationship between social norms and sexual health communication was moderated by acculturation. Next, the significant relationships between the intrapersonal variables and sexual communication variables are illustrated. Regarding the relationship between sexual communication and sexual behavior, based on the figure, sexual health communication was associated with consistent condom use and concurrent sexual partners, and nonverbal sexual communication was associated with condom use at last sex.

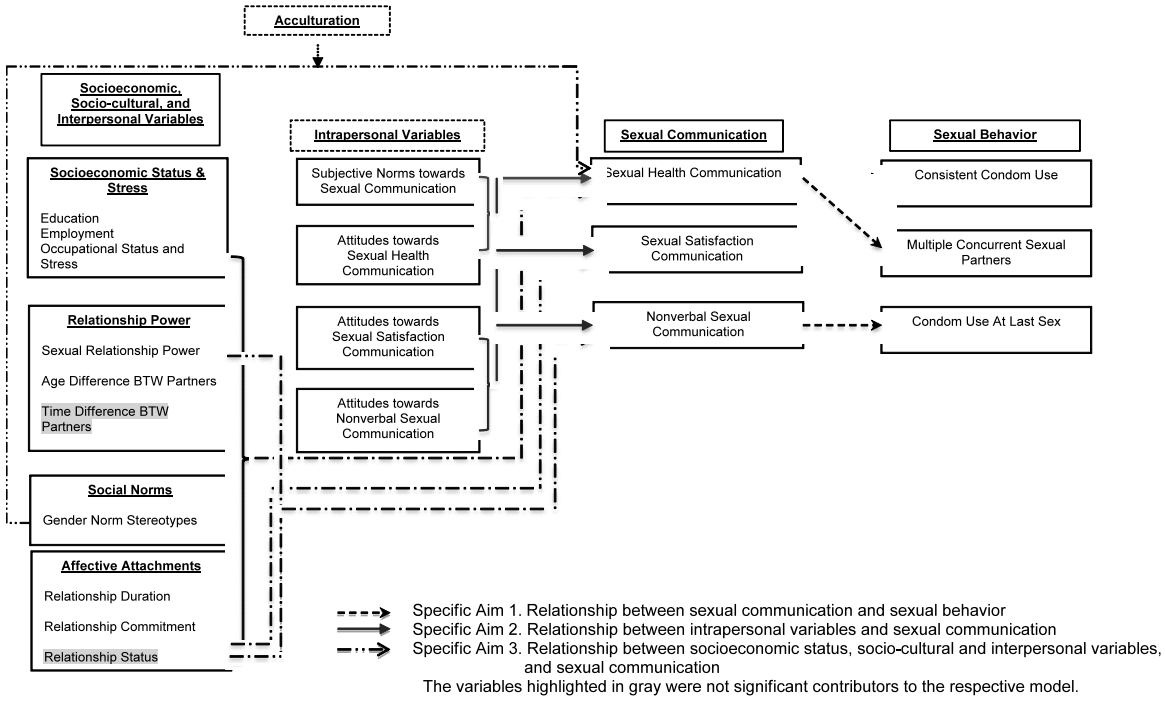

Figure 3. Summary of model relationships.

Table 4.1

Logistic Regression Analysis of Sexual Communication in Predicting Consistent Condom Use

Measures	*b* (*SE*)	*OR*	*p* value	95% CI
Sexual health communication	0.66 (0.24)	1.9	.007	1.20 – 3.14
Sexual satisfaction communication	-0.53 (0.28)	0.59	.06	0.33- 1.04
Nonverbal communication	-0.49 (0.33)	0.60	.13	0.32 – 1.16

Full Model: χ^2 (3, *N* = 220) = 14.92, *p* = .002; Nagelkerke R^2 = -.103; Cox & Snell R^2 = -.066

Table 4.2

Logistic Regression of Sexual Communication in Predicting Condom Use at Last Sex

Measures	*b* (*SE*)	*OR*	*p* value	95% CI
Sexual health communication	0.22 (0.19)	1.25	.252	0.85 - 1.81
Sexual satisfaction communication	-0.01 (0.24)	0.99	.97	0.61 - 1.59
Nonverbal communication	-.077 (0.29)	0.46	.008	0.26 - 0.82

Full Model: χ^2 (3, *N* = 220) = 10.78, *p* = .013; Nagelkerke R^2 = -.065; Cox & Snell R^2 -.048

Table 4.3

Logistic Regression of Sexual Communication in Predicting Number of Current Sexual Partners

Measures	*b* (*SE*)	*OR*	*p* value	95% CI
Sexual health communication	-0.68 (0.32)	0.51	.03	0.27 – .94
Sexual satisfaction communication	-0.02 (0.39)	0.99	.97	0.46 - 2.13
Nonverbal communication	-0.66 (0.48)	0.52	.17	0.20 - 1.32

Full Model: χ^2 (3, N = 220) = 11.72, p = .008; Nagelkerke R^2 = .114 Cox & Snell R^2 = -.052

Table 4.4

Logistic Regression of Sexual Communication in Predicting Contraception Use

Measures	*b* (*SE*)	*OR*	*p* value	95% CI
Sexual health communication	- 0.08 (0.19)	1.08	.68	0.74 – 1.55
Sexual satisfaction communication	0.15 (0.24)	1.16	.53	0.73- 1.83
Nonverbal communication	-0.28 (0.28)	0.75	.32	0.43- 1.31

Full Model: χ^2 (3, N = 211) = 1.32, p = .725; Nagelkerke R^2 = .008; Cox & Snell R^2 = .006

Table 4.5

Hierarchical Logistic Regression of Moderation Effect of Perceived Risk for STI on the Relationship Between Sexual Health Communication and Consistent Condom Use

Measures	*b* (*SE*)	*OR*	*p* value	95% CI
Model 1				
Sexual health communication	0.31 (0.22)	1.36	.15	0.89 – 2.08
Perceived risk for STI	0.10 (0.26)	1.10	.71	0.66 – 1.83
Model 1: χ^2 (2, N = 220) = 2.73, p = .26; Nagelkerke R^2 = -.019; Cox & Snell R^2 = -.012				
Model 2				
Sexual health communication	0.31 (0.22)	1.36	.15	0.89 – 2.08
Perceived risk for STI	0.10 (0.26)	1.10	.71	0.66 – 1.83
Sexual health communication x Perceived risk for STI	-0.02 (0.28)	0.99	.96	0.57 – 1.69
Model 2: χ^2 (3, N = 220) = 2.73, p = .43; Nagelkerke R^2 = -.019 Cox & Snell R^2 = -.012				

Table 4.6

Hierarchical Logistic Regression of Moderation Effect of Perceived Risk for STI on the Relationship Between Sexual Health Communication and Multiple Concurrent Sex Partners

Measures	*b* (*SE*)	*OR*	*p* value	95% CI
Model 1				
Sexual health communication	-0.99 (0.29)	0.37	.001	0.21 – .65
Perceived risk for STI	1.29 (0.34)	3.63	<.001	1.86 – 7.07
Model 1: χ^2 (2, *N* = 220) = 23.99, *p* = < .001; Nagelkerke R^2-.23 Cox & Snell R^2 -.103				
Model 2				
Sexual health communication	-0.94 (0.32)	0.39	.004	0.21 – 0.74
Perceived risk for STI	1.25 (0.36)	3.49	.001	1.71 – 7.10
Sexual health communication x Perceived risk for STI	-0.11 (0.34)	0.89	.74	0.46 – 1.73
Model 2: χ^2 (3, *N* = 220) = 24.11, *p* = <.001; Nagelkerke R^2 = -.23 Cox & Snell R^2 = -.10				

Table 4.7

Hierarchical Logistic Regression of Moderation Effect of Perceived Risk for STI on the Relationship between Nonverbal Sexual Communication and Condom Use at Last Sex

Measures	*b* (*SE*)	*OR*	*p* value	95% CI
Model 1				
Nonverbal sexual health communication	-0.69 (.24)	0.50	.004	0.31 – 0.80
Perceived risk for STI	0.05 (.21)	1.05	.81	0.69 – 1.60
Model 1: χ^2 (2, *N* = 220) = 9.29, *p* = .01; Nagelkerke R^2 -.06; Cox & Snell R^2 -.04				
Model 2				
Nonverbal sexual health communication	-0.70 (0.24)	.49	.004	0.31 – 0.79
Perceived risk for STI	0.06 (0.22)	1.06	.80	0.69 – 1.62
Sexual health communication x Perceived risk for STI	0.03 (0.35)	1.03	.93	0.52 – 2.04
Model 2: χ^2 (3, *N* = 220) = 9.29, *p* = .026; Nagelkerke R^2 = -.06; Cox & Snell R^2 = -.04				

Table 4.8

Logistic Regression Analysis of Sexual Communication in Predicting Consistent Condom Use Among Men

Measures	χ^2 (1, N = 109)	*b*(*SE*)	*OR*	*p value*	95% CI
Sexual health communication	0.37	0.18 (0.30)	1.19	.55	0.66 – 2.16
Sexual satisfaction communication	5.08	-0.65 (0.29)	0.52	.03	0.29- 0.93
Nonverbal communication	4.19	-0.71 (0.35)	0.49	.04	0.24 – .98

Table 4.9

Logistic Regression of Sexual Communication in Predicting Condom Use at Last Sex Among Men

Measures	χ^2 (1, *N* = 109)	*b* (*SE*)	*OR*	p value	95% CI
Sexual health communication	0.02	- 0.03 (0.25)	0.97	.89	0.59 - 1.57
Sexual satisfaction communication	0.87	-0.23 (0.25)	0.79	.35	0.48 - 1.29
Nonverbal communication	1.72	-0.40 (0.30)	0.67	.19	0.36 - 1.22

Table 4.10

Logistic Regression of Sexual Communication in Predicting Contraception Use Among Men's Partners

Measures	χ^2 (1, *N* = 104)	*b* (*SE*)	*OR*	*p* value	95% CI
Sexual health communication	1.44	0.31 (0.25)	1.36	.23	0.82 – 2.28
Sexual satisfaction communication	3.32	0.47 (0.26)	1.60	.08	0.95 - 2.67
Nonverbal communication	.08	.08 (0.31)	1.09	.78	0.59 - 1.99

Table 4.11

Logistic Regression of Sexual Communication in Predicting Multiple Concurrent Sexual Partners Among Men

Measures	χ^2 (1, *N* = 109)	*b* (*SE*)	*OR*	*p* value	95% CI
Sexual health communication	0.30	-0.20 (0.36)	0.81	.58	0.40 – 1.60
Sexual satisfaction communication	0.59	-0.27 (0.35)	0.76	.44	0.38- 1.52
Nonverbal communication	2.46	-0.67 (0.42)	0.51	.11	0.22- 1.17

Table 4.12

Logistic Regression Analysis of Sexual Communication in Predicting Consistent Condom Use Among Women

Measures	χ^2 (1, N = 110)	*b* (*SE*)	*OR*	*p* value	95% CI
Sexual health communication	4.91	0.73 (0.36)	2.07	.04	1.03 – 4.15
Sexual satisfaction communication	.316	-0.17 (0.29)	0.85	.57	0.47- 1.5
Nonverbal communication	1.88	-0.58 (0.42)	0.56	.17	0.25 – 1.27

Table 4.13

Logistic Regression of Sexual Communication in Predicting Condom Use at Last Sex Among Women

Measures	χ^2 (1, *N* = 110)	*b (SE)*	*OR*	*p* value	95% CI
Sexual health communication	3.8	0.51 (0.34)	1.66	.06	0.97 - 2.85
Sexual satisfaction communication	0.66	-0.21 (0.26)	0.81	.42	0.49 - 1.33
Nonverbal communication	7.69	-1.02 (0.38)	0.36	.007	0.17 - 0.76

Table 4.14

Logistic Regression of Sexual Communication in Predicting Contraception Use Among Women

Measures	χ^2 (1, *N* = 107)	*b (SE)*	*OR*	*p* value	95% CI
Sexual health communication	0.31	-0.13 (0.24)	0.88	.58	0.55 – 1.39
Sexual satisfaction communication	1.92	- 0.35(0.26)	.71	.17	0.43- 1.17
Nonverbal communication	2.04	- 0.50 (0.36)	.61	.15	0.30- 1.22

Table 4.15

Logistic Regression of Sexual Communication in Predicting Multiple Concurrent Sexual Partners Among Women

Measures	χ^2 (1, *N* = 110)	*b* (*SE*)	*OR*	*p* value	95% CI
Sexual health communication	12.02	-1.67 (0.55)	0.19	.001	0.06 - 0.56
Sexual satisfaction communication	7.7	-1.25 (0.46)	0.29	.006	0.12 - 0.70
Nonverbal communication	2.24	-1.04 (0.69)	0.36	.14	0.09 - 1.38

Table 4.16

Multiple Linear Regression of Intrapersonal Variables in Predicting Sexual Health Communication

Measures	*b*	*SE b*	β	*p* value
Attitudes towards sexual health communication	0.20	0.10	0.17	.038
Attitudes towards sexual satisfaction communication	0.15	0.12	0.10	.214
Attitudes towards nonverbal sexual communication	0.18	0.09	0.14	.053
Perceived partner approval for sexual communication	-0.06	0.09	-0.05	.499
Behavioral beliefs	-0.08	0.07	-0.09	.231
Subjective norms towards sexual communication	0.21	0.06	0.22	.001

Full Model: $F(6, 219) = 7.41$, $p = .000$; Adjusted $R^2 = .150$

Table 4.17

Multiple Linear Regression of Intrapersonal Variables in Predicting Sexual Satisfaction Communication

Measures	*b*	*SE b*	β	*p* value
Attitudes towards sexual health communication	-0.15	0.08	-0.14	.057
Attitudes towards sexual satisfaction communication	0.44	0.09	0.32	.000
Attitudes towards nonverbal sexual communication	0.44	0.07	0.37	.000
Perceived Partner approval for sexual communication	0.11	0.07	0.09	.148
Behavioral beliefs	0.00	0.05	0.00	.933
Subjective norms towards sexual communication	0.04	0.05	0.05	.361

Full Model: $F(6, 219) = 21.37$, $p = .000$; Adjusted $R^2 = .358$

Table 4.18

Multiple Linear Regression of Intrapersonal Variables in Predicting Nonverbal Sexual Communication

Measures	*b*	*SE b*	β	*p* value
Attitudes towards sexual health communication	-0.08	0.05	-0.09	.177
Attitudes towards sexual satisfaction communication	0.38	0.07	0.36	.000
Attitudes towards nonverbal sexual communication	0.42	0.05	0.47	.000
Perceived partner approval for sexual communication	0.05	0.06	0.06	.383
Behavioral beliefs	-0.08	0.04	-0.11	.074
Subjective norms towards sexual communication	-0.03	0.04	-0.04	.458

Full Model: $F(6, 219) = 26.77$, $p = .000$; Adjusted $R^2 = .414$

Table 4.19

Multiple Linear Regression of Intrapersonal Variables in Predicting Sexual Satisfaction Communication Among Men

Measures	*b*	*SE b*	β	*p* value
Attitudes towards sexual health communication	-0.20	0.11	-0.19	.079
Attitudes towards sexual satisfaction communication	0.54	0.14	0.41	.000
Attitudes towards nonverbal sexual communication	0.48	0.10	0.41	.000
Perceived partner approval for sexual communication	-0.03	0.11	-0.03	.783
Behavioral beliefs	0.07	0.09	0.07	.420
Subjective norms towards sexual communication	0.04	0.07	0.04	.605

Full Model: $F(6, 108) = 12.41$, $p = .000$; Adjusted $R^2 = .388$

Table 4.20

Multiple Linear Regression of Intrapersonal Variables in Predicting Nonverbal Sexual Communication Among Men

Measures	*b*	*SE b*	β	*p* value
Attitudes towards sexual health communication	-0.154	0.09	-0.17	.107
Attitudes towards sexual satisfaction communication	0.43	0.11	0.41	.000
Attitudes towards nonverbal sexual communication	0.48	0.08	0.51	.000
Perceived partner approval for sexual communication	-0.00	0.09	-0.01	.941
Behavioral beliefs	-0.14	0.07	-0.18	.058
Subjective norms towards sexual communication	-0.05	0.05	-0.08	.342

Full Model: $F(6, 108) = 11.14$, $p = .000$; Adjusted $R^2 = .36$

Table 4.21

Multiple Linear Regression of Intrapersonal Variables in Predicting Sexual Health Communication Among Men

Measures	*b*	*SE b*	β	*p* value
Attitudes towards sexual health communication	-0.02	0.14	-0.02	.900
Attitudes towards sexual satisfaction communication	0.44	0.18	0.34	.014
Attitudes towards nonverbal sexual communication	0.11	0.13	0.09	.408
Perceived partner approval for sexual communication	-0.11	0.14	-0.09	.443
Behavioral beliefs	-0.06	0.10	-0.06	.590
Subjective norms towards sexual communication	0.08	0.08	0.09	.358

Full Model: $F(6, 108) = 2.14$, $p = .055$; Adjusted $R^2 = .060$

Table 4.22

Multiple Linear Regression of Intrapersonal Variables in Predicting Sexual Health Communication Among Women

Measures	*b*	*SE b*	β	*p* value
Attitudes towards sexual health communication	0.34	0.14	0.26	.014
Attitudes towards sexual satisfaction communication	-0.19	0.18	-0.11	.292
Attitudes towards nonverbal sexual communication	0.31	0.13	0.25	.016
Perceived partner approval for sexual communication	-0.06	0.13	-0.05	.611
Behavioral beliefs	-0.09	0.09	-0.10	.290
Subjective norms towards sexual communication	0.33	0.10	0.29	.003

Full Model: $F(6, 110)$ 5.28, $p = .000$; Adjusted $R^2 = .189$

Table 4.23

Multiple Linear Regression of Intrapersonal Variables in Predicting Sexual Satisfaction Communication Among Women

Measures	*b*	*SE b*	β	*p* value
Attitudes towards sexual health communication	-0.12	0.11	-0.10	.295
Attitudes towards sexual satisfaction communication	0.47	0.15	0.30	.003
Attitudes towards nonverbal sexual communication	0.36	0.11	0.31	.001
Perceived partner approval for sexual communication	0.21	0.11	0.18	.054
Behavioral beliefs	-0.03	0.08	-0.04	.680
Subjective norms towards sexual communication	0.11	0.09	0.10	.216

Full Model: $F(6,110) = 9.95$, $p = .000$; Adjusted $R^2 = .328$

Table 4.24

Multiple Linear Regression of Intrapersonal Variables in Predicting Nonverbal Sexual Communication Among Women

Measures	*b*	*SE b*	β	*p* value
Attitudes towards sexual health communication	-0.3	0.07	-0.03	.728
Attitudes towards sexual satisfaction communication	0.39	0.09	0.35	.000
Attitudes towards nonverbal sexual communication	0.37	0.07	0.44	.000
Perceived partner approval for sexual communication	0.09	0.06	0.11	.160
Behavioral beliefs	-0.04	0.05	-0.06	.411
Subjective norms towards sexual communication	0.00	0.05	0.01	.894

Full Model: $F(6, 110) = 17.90$, $p = .000$; Adjusted $R^2 = .48$

Table 4.25

Multiple Linear Regression of Socioeconomic Variables in Predicting Sexual Health Communication

Independent Variables	*b*	*SE b*	β	*p* value
Occupational and economic stress	0.13	0.07	0.13	.060
Education				
⩽ Some high school	0.09	0.21	0.05	.665
⩾ High school graduate	-0.20	0.19	-0.12	.288
Job status				
Employed	0.04	0.20	0.02	.855
Not employed	0.16	0.21	0.09	.448

Full Model: $F(5, 218) = 2.80$, $p = .018$; Adjusted $R^2 = .040$

Table 4.26

Multiple Linear Regression of Socioeconomic Variables in Predicting Sexual Satisfaction Communication

Independent Variables	*b*	*SE b*	β	*p* value
Occupational and economic stress	0.04	0.06	0.04	.505
Education				
⩽ Some high school	-0.41	0.19	-0.24	.039
⩾ High school graduate	-0.54	0.18	-0.33	.003
Job status				
Employed	-0.09	0.19	-0.06	.606
Not employed	-0.13	0.20	-0.08	.520

Full Model: $F(5, 218) = 2.10$, $p = .066$; Adjusted $R^2 = .025$

Table 4.27

Multiple Linear Regression of Socioeconomic Variables in Predicting Nonverbal Sexual Communication

Independent Variables	*b*	*SE b*	β	*p* value
Occupational and economic stress	0.04	0.05	0.06	.437
Education				
⩽ Some high school	-0.13	0.15	-0.09	.412
⩾ High school graduate	-0.17	0.14	-0.14	.234
Job status				
Employed	0.01	0.15	0.01	.923
Not employed	-0.06	0.16	-0.05	.696

Full Model: $F(5, 218) = .637$, $p = .672$; Adjusted $R^2 = -0.008$

Table 4.28

Multiple Linear Regression of Relationship Power Variables in Predicting Sexual Health Communication

Independent Variables	*b*	*SE b*	β	*p* value
Sexual relationship power	0.18	0.10	0.12	.068
Partner difference in length of time in U.S.	-0.01	0.00	-0.09	.172
Age difference between partners	-0.03	0.01	-0.16	.019

Full Model: $F(3, 219) = 4.03$, $p = .008$; Adjusted $R^2 = .040$

Table 4.29

Multiple Linear Regression of Relationship Power Variables in Predicting Nonverbal Sexual Communication

Independent Variables	*b*	*SE b*	β	*p* value
Sexual relationship power	0.26	0.07	0.24	.000
Partner difference in length of time in U.S.	-0.00	0.00	-0.05	.421
Age difference between partners	-0.00	0.01	-0.05	.472

Full Model: $F(3,219) = 4.56$, $p = .004$; Adjusted $R^2 = .047$

Table 4.30

Multiple Linear Regression of Relationship Power Variables in Predicting Sexual Satisfaction Communication

Independent Variables	*b*	*SE b*	β	*p* value
Sexual relationship power	0.20	0.09	0.14	.038
Partner difference in length of time in U.S.	0.00	0.00	0.04	.573
Age difference between partners	-0.00	0.01	-0.03	.621

Full Model: $F(3, 219) = 1.73$, $p = .161$; Adjusted $R^2 = .010$

Table 4.31

Hierarchical Multiple Regression of Moderator Effect (Acculturation) on the Relationship Between Age Difference Between Partners and Sexual Health Communication

Independent Variables	*b*	*SE b*	β	*p* value
Model 1				
Age difference between partners	-0.03	0.01	-0.16	.016
Acculturation	-0.28	0.11	-0.16	.015
Model 1: $F(3,219) = 6.75$, $p = .001$; Adjusted $R^2 = .05$				
Model 2				
Age difference between partners	-0.04	.02	-0.20	.018
Acculturation	-0.28	.11	-0.17	.014
Age difference between partners x Acculturation	.021	.03	.06	.477
Model 2: $F(3,219) = 4.66$, $p = .004$; Adjusted $R^2 = .05$; Significance of F change = .477				

Table 4.32

Hierarchical Multiple Regression of Moderator Effect (Acculturation) On the Relationship Between Sexual Relationship Power and Sexual Communication

Independent Variables	*b*	*SE b*	β	*p* value
Model 1				
Sexual relationship power	0.25	0.07	0.23	.001
Acculturation	0.03	0.08	0.02	.712
Model 1: $F(3,219) = 6.18$, $p = .002$; Adjusted $R^2 = .05$				
Model 2				
Sexual relationship power	.23	.10	.21	.015
Acculturation	0.03	.08	0.02	.715
Sexual relationship power x Acculturation	0.04	.15	0.29	.771
Model 2: $F(3, 219) = 4.13$, $p = .007$; Adjusted $R^2 = .04$; Significance of *F* change = .771				

Table 4.33

Simple Linear Regression of Social Norms in Predicting Sexual Health Communication

Independent Variables	*b*	*SE b*	β	*p* value
Gender Norm Stereotype	-0.03	0.09	-0.20	.003

F(1, 219) = 9.02, *p* = .003; Adjusted R^2 = .035

Table 4.34

Simple Linear Regression of Social Norms in Predicting Sexual Satisfaction Communication

Independent Variables	*b*	*SE b*	β	*p* value
Gender Norm Stereotype	-0.10	0.09	-0.08	.233

F(1, 219) = 1.43, *p* = .233; Adjusted R^2 = -.002

Table 4.35

Simple Linear Regression of Social Norms in Predicting Nonverbal Sexual Communication

Independent Variables	*b*	*SE b*	β	p value
Gender Norm Stereotype	0.02	0.07	0.02	.756

F(1, 219) = .097, *p* = .756; Adjusted R^2 = -.004

Table 4.36

Hierarchical Multiple Regression of Moderator Effect (Acculturation) on the Relationship Between Gender Norm Stereotypes and Sexual Health Communication

Independent Variables	*b*	*SE b*	β	*p value*
Model 1				
Gender norm stereotypes	-0.23	0.09	-0.17	.014
Acculturation	-0.25	0.12	-0.14	.035
Model 1: $F(2, 219) = 6.82$, $p = .001$; Adjusted $R^2 = .05$				
Model 2				
Gender norm stereotypes	-0.47	0.12	-.35	<.001
Acculturation	-2.08	0.56	-1.21	<.001
Gender norm stereotypes x Acculturation	0.61	0.18	1.14	.001
Model 2: $F(3, 219) = 6.51$, $p < .001$; Adjusted $R^2 = .09$; Significance of *F* change = .001				

Table 4.37

Multiple Linear Regression of Affective Attachment Variables in Predicting Sexual Health Communication

Independent Variables	*b*	*SE b*	β	p value
Relationship duration	0.05	0.02	0.17	.036
Relationship Commitment	0.00	0.09	0.00	.991
Married	0.32	0.17	0.17	.064
Cohabitating	0.09	0.15	0.04	.578

Full Model: $F(4, 219) = 5.03$, $p = .001$; Adjusted $R^2 = .069$

Table 4.38

Multiple Linear Regression of Affective Attachment Variables in Predicting Sexual Satisfaction Communication

Independent Variables	b	*SE* b	β	p value
Relationship duration	0.02	0.02	0.09	.286
Relationship commitment	0.30	0.09	0.24	.001
Married	-0.09	0.17	-0.05	.549
Cohabitating	-0.19	0.15	-0.10	.187

Full Model: $F(4, 219) = 3.67$, $p = .006$; Adjusted $R^2 = .047$

Table 4.39

Multiple Linear Regression of Affective Attachment Variables in Predicting Nonverbal Sexual Communication

Independent Variables	*b*	*SE b*	β	p value
Relationship duration	0.00	0.02	0.00	.963
Relationship commitment	0.22	0.07	0.23	.001
Married	0.10	0.12	0.08	.404
Cohabitating	0.20	0.11	0.01	.858

Full Model: $F(4, 219) = 3.90$, $p = .004$; Adjusted $R^2 = .050$

Table 4.40

Hierarchical Multiple Regression of Moderator Effect (Acculturation) on the Relationship Between Length of Time in the Relationship and Sexual Health Communication

Independent Variables	*b*	*SE b*	β	*p value*
Model 1				
Relationship duration	0.07	0.02	0.23	.001
Acculturation	-0.21	0.12	-0.12	.073
Model 1: $F(2, 219) = 9.86$, $p < .001$; Adjusted $R^2 = .08$				
Model 2				
Relationship duration	0.09	0.02	0.33	<.001
Acculturation	-0.23	0.12	-0.13	.049
Relationship duration x Acculturation	-0.07	0.04	-0.15	.076
Model 2: $F(3, 219) = 7.70$, $p < .001$; Adjusted $R^2 = .08$; Significance of *F* change = .076				

Table 4.41

Hierarchical Multiple Regression of Moderator Effect (Acculturation) on the Relationship Between Relationship Commitment and Sexual Satisfaction Communication

Independent Variables	*b*	*SE b*	β	*p value*
Model 1				
Relationship commitment	.29	.08	.23	.001
Acculturation	.13	.11	.08	.235
Model 1: $F(2, 219) = 6.90$, $p < .001$; Adjusted $R^2 = .05$				
Model 2				
Relationship commitment	.41	.11	.33	<.001
Acculturation	.13	.11	.08	.235
Relationship commitment x Acculturation	-.26	.16	-.14	.112
Model 2: $F(3, 219) = 5.48$, $p < .001$; Adjusted $R^2 = .06$; Significance of *F* change = .112				

Table 4.42

Hierarchical Multiple Regression of Moderator Effect (Acculturation) on the Relationship Between Relationship Commitment and Nonverbal Sexual Communication

Independent Variables	b	SE b	β	*p value*
Model 1				
Relationship commitment	.24	.06	.25	<.001
Acculturation	.04	.08	.04	.599
Model 1: F(2, 219) = 7.39, p < .001; Adjusted R2 = .06				
Model 2				
Relationship commitment	.33	.08	.35	<.001
Acculturation	.04	.08	.03	.601
Relationship commitment x Acculturation	-.20	.12	-.15	.104
Model 2: F(3,219) = 5.85, p < .001; Adjusted R2 = 0.06; Significance of F change = 0.104				

Table 4.43

Multiple Linear Regression of Socioeconomic Variables in Predicting Sexual Health Communication Among Men

Independent Variables	*b*	*SE* b	β	*p value*
Occupational and economic stress	0.07	0.08	0.08	.420
Education				
≤ Some high school	-0.42	0.29	-0.22	.153
≥ High school graduate	-0.48	0.26	-0.29	.065
Job Status				
Employed	-0.32	0.27	-0.19	.234
Not Employed	-0.16	0.29	-0.09	.575

Full Model: $F(5, 107) = 1.02$, $p = .412$; Adjusted $R^2 = .001$

Table 4.44

Multiple Linear Regression of Socioeconomic Variables in Predicting Sexual Satisfaction Communication Among Men

Independent Variables	*b*	*SE b*	β	*p value*
Occupational and economic Stress	0.04	0.09	0.04	.654
Education				
≤ Some high school	-0.53	0.29	-0.27	.078
≥ High school graduate	-0.55	0.26	-0.32	.037
Job Status				
Employed	-0.129	0.27	-0.08	.631
Not Employed	-0.07	0.29	-0.04	.806

Full Model: $F(5,107) = .946$, $p = .455$; Adjusted R^2 =- .003

Table 4.45

Multiple Linear Regression of Socioeconomic Variables in Predicting Nonverbal Sexual Communication Among Men

Independent Variables	*b*	*SE b*	β	*p value*
Occupational and Economic Stress	0.04	0.07	0.05	.605
Education				
≤ Some high school	-0.12	0.25	-0.08	.631
≥ High school graduate	-0.14	0.22	-0.10	.519
Job Status				
Employed	-0.01	0.22	-0.01	.953
Not Employed	-0.11	0.29	-0.08	.627

Full Model: $F(5,107) = .299$, $p = .912$; Adjusted R^2 = -0.034

Table 4.46

Multiple Linear Regression of Socioeconomic Variables in Predicting Sexual Health Communication Among Women

Independent Variables	*b*	*SE b*	β	*p value*
Occupational and economic stress	0.24	0.09	0.24	.015
Education				
≤ Some high school	0.51	0.29	0.28	.081
≥ High school graduate	0.16	0.26	0.09	.557
Job status				
Employed	0.50	0.29	0.29	.083
Not employed	0.37	0.29	0.21	.208

Full Model: F(5, 110) = 3.05, p = .013; Adjusted R^2 = .086

Table 4.47

Multiple Linear Regression of Socioeconomic Variables in Predicting Sexual Satisfaction Communication Among Women

Independent Variables	*b*	*SE b*	β	*p value*
Occupational and Economic Stress	0.06	0.09	0.06	.537
Education				
≤ Some high school	-0.28	0.28	-0.17	.312
≥ High school graduate	-0.51	0.26	-0.32	.053
Job Status				
Employed	-0.02	0.28	-0.01	.937
Not Employed	-0.21	0.29	-0.12	.472

Full Model: F(5, 110) = 1.32, p = .261; Adjusted R^2 = .014

Table 4.48

Multiple Linear Regression of Socioeconomic Variables in Predicting Nonverbal Sexual Communication Among Women

Independent Variables	*b*	*SE b*	β	*p value*
Occupational and Economic Stress	0.04	0.07	0.06	.544
Education				
≤ Some high school	-0.17	0.21	-0.14	.412
≥ High school graduate	-0.16	0.19	-0.14	.390
Job Status				
Employed	0.05	0.21	0.04	.803
Not Employed	-0.02	0.21	-0.02	.911

Full Model: $F(5,110) = .365$, $p = .872$; Adjusted $R^2 = -0.030$

Table 4.49

Multiple Linear Regression of Relationship Power Variables in Predicting Sexual Health Communication Among Men

Independent Variables	*b*	*SE* b	β	*p* value
Sexual Relationship Power	-0.07	0.14	-0.05	.634
Partner Difference in Length of Time in US	-0.00	0.01	-0.03	.735
Age Difference between Partners	-0.02	0.03	-0.06	.524

Full Model: F(3, 108) = 4.03, p = .844; Adjusted R^2 =- .021

Table 4.50

Multiple Linear Regression of Relationship Power Variables in Predicting Sexual Satisfaction Communication Among Men

Independent Variables	b	*SE* b	β	*p value*
Sexual Relationship Power	0.10	0.14	0.07	.475
Partner Difference in Length of Time in U.S.	0.00	0.01	0.05	.575
Age Difference between Partners	0.02	0.03	0.06	.573

Full Model: F(3,108) = .413, p = .744; Adjusted R^2 = -.017

Table 4.51

Multiple Linear Regression of Relationship Power Variables in Predicting Nonverbal Sexual Communication Among Men

Independent Variables	*b*	*SE* b	β	*p value*
Sexual relationship power	0.19	0.11	0.16	.092
Partner difference in length of time in U.S.	-0.01	0.00	-0.14	.168
Age difference between partners	0.02	0.02	0.08	.406

Full Model: $F(3,108) = 1.75$, $p = .161$; Adjusted $R^2 = .020$

Table 4.52

Multiple Linear Regression of Relationship Power Variables in Predicting Sexual Health Communication Among Women

Independent Variables	*b*	*SE b*	β	*p* value
Sexual relationship power	0.40	0.14	0.28	.004
Partner difference in length of time in U.S.	-0.03	0.01	-0.24	.017
Age difference between partners	0.00	0.02	0.03	.769

Full Model: $F(3,110) = 3.91$, $p = .011$; Adjusted $R^2 = -.074$

Table 4.53.

Multiple Linear Regression of Relationship Power Variables in Predicting Nonverbal Sexual Communication Among Women

Independent Variables	*b*	*SE b*	β	*p* value
Sexual relationship power	0.29	0.09	0.29	.003
Partner difference in length of time in U.S.	-0.00	0.00	-0.01	.913
Age difference between partners	-0.00	0.01	-0.04	.698

Full Model: $F(3, 110) = 3.29$, $p = .023$; Adjusted $R^2 = .059$

Table 4.54

Multiple Linear Regression of Relationship Power Variables in Predicting Sexual Satisfaction Communication Among Women

Independent Variables	*b*	*SE b*	β	*p* value
Sexual relationship power	0.29	0.14	0.21	.032
Partner difference in length of time in U.S.	-0.00	0.01	-0.00	.959
Age difference between partners	-0.00	0.02	-0.03	.741

Full Model: $F(3,110) = 1.68$, $p = .176$; Adjusted $R^2 = .018$

Table 4.55

Simple Linear Regression of Social Norms in Predicting Sexual Health Communication Among Men

Independent Variables	*b*	*SE b*	β	*p* value
Gender Norm Stereotype	-0.00	0.15	-0.00	.969

F(1, 108) = .001, *p* = .969; Adjusted R^2 = - .009

Table 4.56

Simple Linear Regression of Social Norms in Predicting Sexual Satisfaction Communication Among Men

Independent Variables	*b*	*SE b*	β	*p* value
Gender Norm Stereotype	0.02	0.15	0.01	.890

F(1, 108) = .019, *p* = .890; Adjusted R^2 = -.009

Table 4.57

Simple Linear Regression of Social Norms in Predicting Nonverbal Sexual Communication Among Men

Independent Variables	*b*	*SE b*	β	*p* value
Gender Norm Stereotype	0.02	0.15	0.01	.890

F(1, 108) = .019, *p* = .890 Adjusted R^2 = -.009

Table 4.58

Simple Linear Regression of Social Norms in Predicting Sexual Health Communication Among Women

Independent Variable	*b*	*SE b*	β	*p* value
Gender Norm Stereotype	-0.35	0.10	-0.29	.002

F(1, 110) = 10.51, *p* = .002; Adjusted R^2 = .080

Table 4.59

Simple Linear Regression of Social Norms in Predicting Sexual Satisfaction Communication Among Women

Independent Variable	*b*	*SE b*	β	*p* value
Gender Norm Stereotype	-0.15	0.10	-0.14	.155

F(1, 110) = 2.04, *p* = .155; Adjusted R^2 = .009

Table 4.60

Simple Linear Regression of Social Norms in Predicting Nonverbal Sexual Communication Among Women

Independent Variable	*b*	*SE b*	β	*p* value
Gender Norm Stereotype	-0.15	0.11	-0.14	.155

F(1, 110) =2 .048, *p* = .155 Adjusted R^2 = .009

Table 4.61

Multiple Linear Regression of Affective Attachment Variables in Predicting Sexual Satisfaction Communication Among Men

Independent Variables	*b*	*SE b*	β	*p* value
Relationship duration	-0.00	0.04	-0.00	.943
Relationship commitment	0.36	0.11	0.31	.002
Married	0.02	0.26	0.00	.933
Cohabitating	-0.18	0.23	-0.09	.439

Full Model: $F(4, 108) = 2.47$, $p = .049$; Adjusted $R^2 = .052$

Table 4.62

Multiple Linear Regression of Affective Attachment Variables in Predicting Sexual Health Communication Among Men

Independent Variables	*b*	*SE b*	β	*p* value
Relationship duration	0.04	0.04	0.10	.379
Relationship commitment	0.14	0.12	0.12	.229
Married	0.23	0.26	0.09	.384
Cohabitating	-0.41	0.22	-0.20	.074

Full Model: $F(4, 108)$ 1.81, $p = .132$; Adjusted $R^2 = .069$

Table 4.63

Multiple Linear Regression of Affective Attachment Variables in Predicting Nonverbal Sexual Communication Among Men

Independent Variables	*b*	*SE b*	β	*p* value
Relationship duration	-0.04	0.03	-0.13	.239
Relationship commitment	0.22	0.09	0.24	.019
Married	0.09	0.22	0.05	.652
Cohabitating	0.08	0.19	0.05	.690

Full Model: $F(4, 108) = 1.94$, $p = .109$; Adjusted $R^2 = .034$

Table 4.64

Multiple Linear Regression of Affective Attachment Variables in Predicting Sexual Health Communication Among Women

Independent Variables	*b*	*SE b*	β	*p* value
Relationship duration	0.05	0.02	0.19	.074
Relationship commitment	-0.15	0.14	-0.11	.268
Married	0.29	0.23	0.17	.220
Cohabitating	0.30	0.22	0.16	.176

Full Model: $F(4, 110) = 2.65$, $p = .037$; Adjusted $R^2 = .057$

Table 4.65

Multiple Linear Regression of Affective Attachment Variables in Predicting Sexual Satisfaction Communication Among Women

Independent Variables	*b*	*SE b*	β	*p* value
Relationship duration	0.04	0.02	0.15	.199
Relationship commitment	0.23	0.14	0.16	.094
Married	-0.18	0.23	-0.11	.445
Cohabitating	-0.23	0.21	-0.13	.294

Full Model: $F(4, 110) = 1.31$, p = .270; Adjusted $R^2 = .011$

Table 4.66

Multiple Linear Regression of Affective Attachment Variables in Predicting Nonverbal Sexual Communication Among Women

Independent Variables	*b*	*SE b*	β	*p* value
Relationship duration	0.01	0.02	0.08	.450
Relationship commitment	0.19	0.09	0.20	.039
Married	0.08	0.16	0.07	.620

Cohabitating	0.01	0.15	0.01	.929

Full Model: $F(4, 110) = 1.875$, $p = .120$; Adjusted $R^2 = .031$

Table 4.67

Sexual Health Communication as a Mediator Between Socioeconomic, Socio-cultural, and Interpersonal Variables, and Consistent Condom Use

	Effect of IV on sexual health communication *b* (*SE*)	Direct effect of IV on consistent condom use *b* (*SE*)	Effect of IV on consistent condom use, controlling for sexual health communication *b* (*SE*)
Independent Variables (IV)			
Age difference between partners	-0.03 (0.01)*	0.02 (0.04)	0.03 (0.04)
Gender norm stereotypes	-0.03 (0.09)	0.06 (0.27)	0.16 (0.27)
Relationship duration	0.05 (0.02)**	-0.18 (0.07)***	-0.23 (0.07)**

*p < .05. **p < .01. ***p<.001.

Table 4.68

Sexual Health Communication as a Mediator Between Socioeconomic, Socio-Cultural, and Interpersonal Variables, and Multiple Concurrent Sex Partners

	Effect of IV on sexual health communication *b* (*SE*)	Direct effect of IV on multiple concurrent sex partners *b* (*SE*)	Effect of IV on multiple concurrent sex partners, controlling for sexual health communication *b* (*SE*)
Independent Variables (IV)			
Age difference between partners	-0.03 (0.01)*	0.06 (0.07)	0.04 (0.07)
Gender norm stereotypes	-0.03 (0.09)	-0.48 (0.41)	- 0.62 (0.44)
Relationship duration	0.05 (0.02)**	-0.14 (0.10)	-0.09 (0.10)

*p < .05. **p < .01.

Table 4.69

Nonverbal Sexual Communication as a Mediator Between Socioeconomic, Socio-cultural, and Interpersonal Variables, and Condom Use at Last Sex

	Effect of IV on nonverbal sexual communication *b* (*SE*)	Direct effect of IV on condom use at last sex *b* (*SE*)	Effect of IV on condom use at last sex, controlling for nonverbal sexual communication *b* (*SE*)
Independent Variables (IV)			
Sexual relationship power	0.25 (0.07)***	0.16 (0.26)	-0.79 (0.25)***
Relationship commitment	0.24 (0.06)***	-0.70 (0.23)***	-0.57 (0.24)*

*p <.05. ***p < .001.

Table 4.70

Sexual Satisfaction Communication as a Mediator Between Socioeconomic, Socio-Cultural, and Interpersonal Variables, and Consistent Condom Use Among Men

	Effect of IV on sexual satisfaction communication *b* (*SE*)	Direct effect of IV on consistent condom use *b* (*SE*)	Effect of IV on consistent condom use, controlling for sexual satisfaction communication *b* (*SE*)
Independent Variable (IV)			
Relationship commitment	0.36 (0.11)**	-0.38 (0.34)	-0.16 (.36)

**p < .01.

Table 4.71

Sexual Health Communication as a Mediator Between Socioeconomic, Socio-cultural, and Interpersonal Variables, and Consistent Condom Use Among Women

	Effect of IV on sexual health communication *b* (*SE*)	Direct effect of IV on consistent condom use b (*SE*)	Effect of IV on consistent condom use, controlling for sexual health communication b (*SE*)
Independent Variables (IV)			
Occupational and economic stress	0.26 (0.09)***	-0.02 (0.29)	-0.18 (0.29)
Age difference between partners	-0.00 (0.02)	0.00 (0.06)	0.01 (0.06)
Gender norm stereotypes	-0.35 (0.11)***	0.03 (0.34)	0.28 (0.34)

***p < .001.

Table 4.72

Sexual Health Communication as a Mediator Between Socioeconomic, Socio-cultural, and Interpersonal Variables and Multiple Concurrent Sexual Partners Among Women

	Effect of IV on sexual health communication *b* (*SE*)	Direct effect of IV on multiple concurrent sexual partners *b* (*SE*)	Effect of IV on multiple concurrent sexual partners, controlling for sexual health communication *b* (*SE*)
Independent Variables (IV)			
Occupational and economic stress	0.26 (0.09)***	-1.43 (1.05)	-1.40 (1.3)
Age difference between partners	-0.00 (0.02)	0.06 (0.11)	0.08 (0.13)
Gender norm stereotypes	-0.35 (0.11)***	0.23 (0.58)	-0.39 (0.88)

***p < .001.

Table 4.73

Nonverbal Sexual Communication as a Mediator between Socioeconomic, Socio-cultural, and Interpersonal Variables, and Condom Use at Last Sex Among Women

	Effect of IV on nonverbal sexual communication *b* (*SE*)	Direct effect of IV on condom use at last sex *b* (*SE*)	Effect of IV on condom use at last sex; controlling for nonverbal sexual communication *b* (*SE*)
Independent Variable (IV)			
Sexual relationship power	0.29 (0.09)***	0.66 (0.41)	1.09 (0.45)*

*p <.05. ***p < .001.

Chapter 5

Discussion

The purpose of this study was to examine the influence of sexual communication on sexual behavior among young adult, heterosexual Latino couples as well as the influence of social, interpersonal, and intrapersonal factors on sexual communication between partners. The framework for this study was a modified extended version of the Theory of Gender and Power (TGP). In this chapter, results are discussed according to the specific aims, followed by a discussion of strengths, limitations, implications for clinical practice, and recommendations for future research.

Relationship Between Sexual Communication and Sexual Behaviors

Results from this study suggest that sexual communication was associated with all sexual behaviors, except for contraception use. Young adults who engaged in more sexual health communication with their sexual partner were more likely to consistently use condoms. Furthermore, those who engaged in sexual health communication were less likely to have more than one current sexual partner. These findings were consistent with those from previous studies (Castaneda, 2000; Catania et al., 1992; Rickman et al., 1994). Regarding nonverbal sexual communication, young adults who engaged in nonverbal sexual communication were less likely to have used condoms at last sex.

In exploring differences between men and women, sexual communication predicted more safe sex behaviors in women. Women who engaged in sexual health communication were more likely to consistently use condoms and less likely to have more than one current sexual partner. It may be that having only one sexual partner allows for an individual to be more open to discussing matters of sexual health with their sexual partner. In a study among Latina women, those who had more than one sexual partner were less open to sexual communication (Moore et al., 1995). An individual with clandestine, concurrent sex partners may be less likely to engage in sexual health communication with his/her partner. Contrary to women, among men in this study, sexual health communication did not predict any sexual behavior.

Unique to this study was the exploration of several aspects of sexual communication. In addition to verbal and nonverbal communication, matters of sexual health and sexual satisfaction were also evaluated. This expanded perspective revealed that nonverbal sexual communication had a negative relationship with condom use behaviors. Women who engaged in nonverbal sexual communication were less likely to use condoms at last sex. Similarly, men who engaged in nonverbal sexual communication and sexual satisfaction communication were less likely to consistently use condoms.

In this study, nonverbal sexual communication was conceptualized as how one shows his/her partner what is sexually satisfying or unsatisfying. Young adults in this study who engaged in more nonverbal and sexual satisfaction communication may have had a value for sexual satisfaction that outweighed the

desire for condom use, thus explaining the decreased likelihood of condom use at last sex. Another possible reason for the negative relationship between nonverbal communication and condom use is the decreased rational thinking that may occur when sexually aroused (Carrillo, 2002). Participants in an ethnographic study shared the desire for spontaneity and being engrossed in a pleasurable moment. Amidst this spontaneity and focus on pleasure, the “rational thinking” that would advocate for safe sex is subdued. These findings highlight the disconnect individuals may feel regarding sexual pleasure and condom use.

The negative relationship between sexual satisfaction and condom use behavior was also noted in other studies. Two different qualitative studies (Alvarez, unpublished; Pulerwitz & Dworkin, 2006) provided reports of women, in particular, disliking condoms because of decreased sensation for themselves. Similarly, findings from Latino youth showed that among women, seduction was useful in avoiding condom use, however among men, expressing dislike for condoms and use of seduction resulted in a higher rate of condom use (Bird et al., 2001; Noar et al., 2004; Tschann et al., 2010; Zukoski, Harvey, & Branch, 2009). Further research is warranted to understand the gender differences and contexts for matters of sexual satisfaction affecting condom use or other sexual behaviors.

The major gender differences regarding the relationship between sexual communication and sexual behavior was that sexual health communication was related to protective behavior in women but not in men. This gender difference may be the result of women and men in this study having significantly different

characteristics. Compared to men, women in this sample were older, had older partners, had been in their relationships for longer, and were more likely to be married or cohabitating. These differences may also explain why women were found to engage in more sexual health communication compared to men. Supporting these differences between men and women are findings from Alvarez's qualitative study (unpublished). Male focus group participants, in particular, shared that matters of sexual health were not addressed until later in a relationship once the couple was either living together and/or more comfortable with each other. Since women had been with their partners for almost twice as long as men had been with theirs, women may have already reached this level of comfort and therefore had more sexual health discussions with their partners. Being in a relationship for a longer period of time may have also presented more opportunity for situations that forced sexual health discussions.

Another important variable to consider when evaluating the relationship between sexual communication and condom use behavior is one's perceived risk of exposure to STIs as well as risk for unintended pregnancy. Overall perceived risk for STIs was low and did not moderate the relationships between sexual communication and sexual behavior. Perceived risk for STIs may be better considered as an intrapersonal variable and antecedent of sexual communication. For a more complete understanding of how individuals manage their perceived risk for STIs and sexual behavior, future studies should further explore how perceived risk for STIs may influence sexual communication and

ultimately sexual behavior. Findings from such a study may help inform how couples weigh sexual risk and pleasure.

Intrapersonal Influences on Sexual Communication

Of all the concepts explored in this study, intrapersonal variables (perceived partner approval for sexual communication, attitudes towards sexual communication, behavioral beliefs, and subjective norms towards sexual communication) explained the most variance in all components of sexual communication. Intrapersonal variables explained 15% of the variance in sexual health communication, 35.8% in sexual satisfaction communication, and 41.4% in nonverbal sexual communication. Of all the intrapersonal variables, attitude towards nonverbal sexual communication had the strongest effect on the different aspects of sexual communication.

When considering differences between the sexes, compared to the findings for the entire sample, similar trends were noted. Similar to the overall sample, among women, intrapersonal variables explained 18.9% of the variance in sexual health communication, 32.8% in sexual satisfaction communication, and 48% in nonverbal sexual communication. The strongest predictors of sexual health communication were subjective norms towards sexual communication, followed by attitudes towards sexual health communication, and nonverbal sexual communication. These findings contrast with those of Davila (2005) and Noland (2006) that suggest women are often reluctant to discuss sex with their partner due to fear of a negative reaction. However, findings from the present study show that perceived approval of family and friends for sexual health

communication and individuals' personal feelings towards sexual health communication were most important.

Among men, the model did not explain sexual health communication, but it accounted for 38.8% of the variance in sexual satisfaction communication and 36% for nonverbal sexual communication. As in the entire sample, sexual satisfaction communication and nonverbal sexual communication were predicted most strongly by attitudes towards sexual satisfaction and nonverbal sexual communication. Despite having positive attitudes towards sexual health communication, on average men rarely engaged in sexual health communication with their partners, and attitude towards sexual health communication did not explain the behavior. It may be that, for men, some other factor needs to be present in order for them to engage in sexual health communication—for instance, their partner initiating the discussion. Male focus group participants shared how they often wait for women to broach topics about sexual health in an effort not to offend their partner (Alvarez, unpublished). There were no data collected on who is more likely to initiate discussions about sexual health issues.

Unlike sexual health communication, sexual satisfaction communication and nonverbal sexual communication are more proximal to actual sexual activity between the couple. This is a potential reason for intrapersonal variables explaining much more of the variance in sexual satisfaction and nonverbal sexual communication, compared to the variance explained for sexual health communication. Indeed, it was participants' attitudes about sexual satisfaction and nonverbal sexual communication that most predicted both types of

communication. Relevant to these findings is the idea of avoiding “rational thinking.” Theoretically, during sexual activity, physical and emotional feelings are most salient and more likely to influence behavior. These findings also contradict the common suggestions in the literature that young adult Latinos avoid sexual communication out of concern for their partners’ potential negative reaction. In fact, perceived partner approval for sexual communication did not predict any sexual communication behavior.

Sexual satisfaction and nonverbal sexual communication were most explained by the intrapersonal variables. Future research should explore what most likely forms these attitudes about sexual satisfaction. A secondary data analysis that explores the relationship between the socioeconomic, socio-cultural, interpersonal, and intrapersonal variables could be a first step towards further understanding sexual satisfaction among Latinos.

Socioeconomic, Socio-cultural, and Interpersonal Influences on Sexual Communication

Socioeconomic status and stress, relationship power, gender norm stereotypes, and affective attachment all explained sexual health communication. However, this was not the case for sexual satisfaction communication and nonverbal sexual communication. Sexual satisfaction communication was only explained by affective attachment, and nonverbal sexual communication was explained by relationship power and affective attachment.

Affective Attachments

Compared to all other TGP constructs, among the entire sample, affective attachment explained the most variance in all aspects of sexual communication. Results suggested that the longer a couple had been together the more likely they were to discuss matters of sexual health. This finding and possible explanation is supported by previous research with young adult Latinos (Alvarez, unpublished). Focus group participants described how they often do not discuss matters of sexual health until after they have been with their partner for a while. Part of the reason for waiting to have these discussions was because there was less anticipation of a negative consequence. After being married or with a partner for a period of time, there was a sense of commitment and less risk of being judged by one's partner.

Among the total sample, relationship commitment predicted sexual satisfaction communication and nonverbal sexual communication. Similarly, when considering men and women separately, relationship commitment also predicted sexual satisfaction communication in men. The more committed participants were to their relationships the more they communicated about sexual satisfaction either verbally or nonverbally. It is plausible that greater commitment to one's relationship increased comfort and importance of his/her partner's sexual satisfaction, leading to more sexual satisfaction communication and nonverbal sexual communication. Previous studies have not been found to address the relationship between relationship commitment and verbal or nonverbal communication about sexual satisfaction.

Contrary to findings from previous research (Saul, 1999), when considering men and women separately, affective attachment only explained sexual satisfaction communication in men and did not explain any sexual communication in women. This unexpected finding also contradicts the extended version of the Theory of Gender and Power, which posits that women's greater commitment to their relationships makes women more vulnerable to sexual risk behavior. If this is indeed the case, then affective attachment should have theoretically been negatively associated with sexual health communication and positively associated with sexual satisfaction and nonverbal sexual communication. The lack of association between the affective attachment variables and sexual communication may be due to the context in which the discussions about sex may occur. Sexual health communication may occur in casual settings where the content of the discussion is motivated by one's desire to recount a story or merely talk about one's self versus being motivated by the individual's emotional feelings for his/her partner.

Relationship Power

After affective attachment, relationship power explained the most variance in sexual health communication and nonverbal sexual communication. In this study, greater age difference between partners was related to less sexual health communication. Those who were younger than their partner may experience more apprehension about engaging in sexual health communication with a partner and therefore communicate less about the topic. On the other hand, greater relationship power was positively associated with nonverbal sexual

communication. The measure used to evaluate relationship power also reflected the type of interaction one may have with his/her partner. For instance, feeling free to do and say whatever one pleases in the presence of his/her partner may reflect a degree of intimacy which could facilitate greater nonverbal sexual communication.

Among women, relationship power explained 7.4% of the variance in sexual health communication and 5.9% of the variance in nonverbal sexual communication. Similar to the larger sample, nonverbal sexual communication was most predicted by sexual relationship power. A greater degree of relationship control and decision-making power was positively associated with nonverbal sexual communication. As previously stated, women with more relationship control possibly had more intimate relationships which supported greater expression of sexual satisfaction.

The strongest predictors of sexual health communication were sexual relationship power and partner difference in length of time in the United States. Greater relationship power was positively associated with sexual health communication. These findings offer a different perspective to the literature regarding relationship power and sexual communication. Saul and colleagues (1999) also examined relationship power and sexual communication among Puerto Rican women. Relationship power explained 12% of the variance in HIV-related communication; however relationship commitment – a component of relationship power – was negatively associated with HIV-related communication. This contrast in findings may be the result of variation in the measures.

A greater difference in length of time in the United States between partners was negatively associated with sexual health communication. Women who perceived themselves to have a more power-balanced relationship or who were more dominant in their relationships may have felt more empowered to engage in sexual health communication with their partner. Women who had been in the United States for less time than their partner may have felt less empowered to engage in sexual health communication. The negative relationship between time difference in the United States and sexual health communication may also be a function of avoidance of the topic from each person in the relationship, and not necessarily an issue of power but of self-perceived barriers to sexual health communication. For instance, male focus group participants (Alvarez, unpublished) shared that they would avoid initiating discussions about sex in order not to offend their partner, especially if she was from a "traditional" (i.e., conservative) family. At the same time, women who had been in the United States for a less time compared to their partners may also perceive more negative subjective norms about sexual communication. This potential apprehension from both men and women may contribute to the negative relationship between sexual health communication and partner difference in length of time in the United States.

Socioeconomic Status and Stress

When considering the entire sample and among women only, sexual health communication was the only sexual communication variable explained by the socioeconomic status and stress construct. Contrary to findings by Saul

(1999), findings from this study suggest that women with greater occupational and economic stress communicated more about sexual health. For example, greater occupational and economic stress may have prompted more frequent discussions about pregnancy prevention. Regarding sexual satisfaction and nonverbal sexual communication (given that these types of communication address actual sexual pleasure), economic stressors, education, or employment may not be pertinent factors to the couples' sexual enjoyment.

Although this study did not explore matters of traveling for work, having a partner who occasionally travels out of town for work may generate concerns about STIs and consequently create more discussion about sexual health issues. Despite the small amount of variance explained in sexual health communication, these results support the TGP because the data suggest that socioeconomic status remains an important factor to consider in sexual health communication among Latina women. In addition to having a direct effect on sexual health communication, socioeconomic status may also predict other antecedents of sexual health communication such as the intrapersonal variables; future studies should explore these relationships.

Social Norms

Compared to all the TGP constructs, social norms explained the least amount of variance (3.5%) in sexual health communication. Greater belief in sexual gender norm stereotypes was negatively associated with sexual health communication. These findings support those from qualitative studies that explored how gender norms influence sexual communication (Marston, 2004;

Noland, 2006; Noland, 2008). Participants described how discussion of sex was only discussed in certain contexts in order not to breach social expectations of appropriate communication between men and women. However, the fact that gender norm stereotypes explained a small amount of the variance in sexual health communication also challenges the emphasis that authors (see Marston, 2004; Noland, 2006; Noland, 2008) have put on gender norm stereotypes and its effect on sexual communication. The small variance explained suggests other factors are likely to be as important, if not more important, than gender norm stereotypes. In addition, as suggested by the title of the measure, the measure only evaluated sexual gender norm stereotypes. Other attributes not necessarily associated with sex and ascribed to men and women, such as self-sacrifice or being a protector, may also influence sexual communication.

Among women, gender norm stereotypes were also negatively associated with sexual health communication. This finding is supported by research that also examined the influence of "cultural values" on sexual behavior (Deardorff et al., 2008). Among Latinas in the sample, values considered reflective of gender norms (e.g., the importance of female virginity) were negatively associated with comfort with sexual communication.

A plausible explanation for the negative relationship between gender norm stereotypes and sexual health communication comes from previous research about sexual communication with sex-segregated focus groups (Alvarez, unpublished). In the focus group discussions, women shared how from early in their childhood they were shamed for asking questions about sex; this created

the impression that sex was not something to be discussed. Minimal open discussions throughout one's life about sex may have supported gender norm stereotypes and also discouraged sexual health communication.

The fact that gender norm stereotypes predicted sexual health communication (but not sexual satisfaction or nonverbal sexual communication) raises further questions about the potential differences in the different types of sexual communication. Sexual satisfaction and nonverbal sexual communication are exchanges most likely to occur during sexual activity—a time when inhibitions for certain behaviors may be low and the focus of the activity is pleasure. On the other hand, contexts in which sexual communication occurs may allow for women to be more influenced by sexual gender norm stereotypes. Sexual gender norm stereotypes did not influence any sexual communication among men.

Another unique finding in this study was the moderator effect of acculturation on the relationship between gender norm stereotypes and sexual health communication. Results suggested that among those with a low-level of acculturation, gender norm stereotypes had a significant negative effect on sexual health communication, but this pattern did not hold among those with a high-level of acculturation. These findings may be the result of low-acculturated individuals having different relationship characteristics compared to those with a high-level of acculturation. For example, those with low-levels of acculturation may have been in their relationships longer and therefore engaged in more sexual health communication; this greater communication may have provided the

opportunity for the effects of gender norm stereotypes to be noted. This moderator effect of acculturation justifies further exploration of the data by acculturation level.

Research on the relationship between level of acculturation and sexual communication among Latinos has provided equivocal results (Deardorff et al., 2010; Rojas-Guyler et al., 2005). Understanding more about how predictors of sexual communication may differ by level of acculturation can help refine how to address matters of sexual communication among a diverse population of Latinos. Further analyses of the current data could be conducted to examine whether acculturation moderates the relationships between social and interpersonal factors and intrapersonal variables—among the entire sample as well as within each sex group. The negative relationship between sexual health communication and partner difference in length of time in the United States raises the issue not just about acculturation of the individual but also how differences in acculturation level within the couple may influence sexual communication and sexual behavior.

Sexual Communication as a Mediator of Socioeconomic, Socio-cultural, and Interpersonal Influences on Sexual Behavior

Nonverbal sexual communication was the only sexual communication variable that demonstrated to have some meditational role between socioeconomic, socio-cultural, and interpersonal variables in relationship to sexual behavior. Results suggest that nonverbal sexual communication may have partially mediated the relationship between relationship commitment and condom use at last sex. Since nonverbal sexual communication focuses on

sexual satisfaction, this finding highlights the importance of sexual satisfaction and its mediating role on condom use. The mediating role of sexual communication between social and relationship characteristics and sexual behavior has not been previously noted in the literature among young adult Latinos. Considering that certain aspects of sexual communication can have either negative or positive influences on sexual behavior, further studies should continue to explore how sexual communication works within a relationship context.

Although certain socioeconomic, socio-cultural, and interpersonal variables were associated with sexual health communication, and sexual health communication was associated with consistent condom use, sexual health communication did not mediate the relationship between the social and interpersonal variables and consistent condom use. Sexual health communication could not be a mediator largely because some of the independent variables were not associated with consistent condom use. Consistent condom use was not associated with age difference between partners or sexual gender norm stereotypes. Relationship duration was the only selected independent variable that was associated with consistent condom use. Relationship duration was both directly and indirectly negatively associated with consistent condom use. However, sexual health communication was still not considered a mediator.

A possible reason for the lack of sexual health communication mediation may have to do with how couples develop their sexual behaviors. Previous

qualitative research with young adult Latinos in relationships revealed that this population might not engage in sexual health communication until much later in their relationships and often after sexual activity has occurred (Alvarez, unpublished). For instance, in this sample, sexual satisfaction seemed important and sexual satisfaction and nonverbal sexual communication had negative relationships with consistent condom use. In addition, the longer couples were together a greater sense of trust may have developed contributing even more to inconsistent condom use. Future studies should further explore which characteristics about a couple may directly influence sexual behavior.

When considering groups of men and women separately, sexual communication variables had no mediating role. There was no mediation partly because similar to findings from the entire sample, the socioeconomic, socio-cultural, and interpersonal variables had no relationship with condom use behaviors. Particularly with regards to women, these data do not support the common assertion in the literature that women's low socioeconomic status, relationship status, and relationship power increase their vulnerability to unsafe behaviors. However, the socioeconomic, socio-cultural, and interpersonal variables accounted for small amounts of the variance (5.9 – 8.9%) in the sexual communication variables, which suggest that other factors are likely contributors to sexual communication within a relationship. Further studies that focus on dyads may provide more insight to factors within a couple that may improve explanatory power of the model.

Validation of the Theoretical Framework

According to the extended version of the TGP, gender-based inequities and social expectations of women increase women's risk for exposure for adverse sexual health outcomes. Indeed, data from this study revealed that the TGP explained more about sexual communication and sexual behavior in women compared to men. However, the data revealed more about women's power than vulnerability in their relationships. Relationship power was positively associated with both sexual health communication and nonverbal sexual communication, and sexual health communication was positively associated with safer sex behaviors. These results contribute to the literature on some women's power and ability to advocate for their choice of condom-less or protected sex.

In addition, these results challenge the assumption of the sexual division of power, which suggests that within heterosexual relationships men assume more power. Therefore, researchers who use the TGP should be aware that the underlying assumption of male dominance in heterosexual relationships may not be a given. Important to also consider when studying relationship power is the target population's perspective on what power means in their relationships; such a perspective may provide further insight into other factors that may influence power dynamics within a relationship. For instance, some women may prefer for their partner to assume decision making for certain aspects of their relationship, and fulfillment of this preference may in turn make a woman feel validated and powerful. This dynamic of power, perhaps being influenced by gender norm

expectation, highlights the importance of considering social norms in conjunction with relationship power.

Findings from this study also support perspectives about sexual silence. The negative relationship between gender norm stereotypes and sexual health communication supports the assertion that traditional gender norms challenge open sexual communication between partners. However, the negative relationship between nonverbal sexual communication and condom use also supports the perspective that sexual silence serves to enhance sexual satisfaction.

The TGP validated the importance and relevance of concomitantly considering all three theoretical constructs when using the theory to explore risk behavior. Inclusion of all theoretical constructs in this study yielded results which suggest that although women may conform to certain gender norm expectations they may still be empowered to advocate for protected sex within their relationships.

Summary

Sexual communication in the context of sexually active, heterosexual relationships is complex. This study is one of the few studies to use the extended version of the TGP to explore the influence of sexual communication on sexual behavior in both men and women as well as the influence of social, interpersonal, and intrapersonal factors on sexual communication. The modified extended version of the TGP used to explore sexual communication among young adult Latinos revealed significant and preliminary evidence. Previous research among

young adult Latinos has been atheoretical, focused on verbal communication about condoms, and limited in the inclusion of Latino men. The current framework revealed some potential gender differences in sexual communication, demonstrated how different aspects of sexual communication relate distinctly to different sexual behaviors, and illustrated how social, interpersonal, and intrapersonal factors also differ in their influence on various aspects of sexual communication.

Strengths and Limitations

There are several main strengths of this study. Unlike previous work, this study used a theoretical framework guided by preliminary research on young adult Latinos and their perspectives on sexual communication. This is one of the few studies that has given equal importance to sexual health communication, sexual satisfaction communication, and nonverbal sexual communication and the influence of these variables on not only condom use, but also use of contraceptives and number of sexual partners. In addition, this study assessed how socioeconomic status, affective attachment, relationship power, and sexual gender norm stereotypes influence sexual communication. Finally, this study evaluated the meditational role of sexual communication when considering social and interpersonal factors and sexual behavior. All of these relationships were evaluated in men and women, thus addressing the paucity in the literature on Latino men and sexual communication.

This study also has several limitations. This was a cross-sectional study; therefore, causation cannot be assumed. In addition, the data collected are

representative of a convenience sample of which the majority were of Mexican heritage and resided in southwest Detroit. Due to insufficient power, a test of the entire model was not conducted. Therefore, significant pathways that may explain more about sexual communication may potentially be missing. Furthermore, all data are based on self-report measures that may have been influenced by social desirability. Given the limitations of this study, a replication of the study should include Latinos representing different nationalities, a larger sample size, and an evaluation of social desirability.

Recommendations for Future Research

This study is a preliminary step in using a modified extended version of the TGP to understanding the relationship between social, interpersonal, and intrapersonal factors and sexual communication within Latino couples, as well as the relationship between different aspects of sexual communication and sexual behavior. The following sections address recommendations for future research.

Findings from this study suggest that there may be gender differences in how sexual communication influences sexual behavior, as well as in how socio-economic, socio-cultural, interpersonal, and intrapersonal factors influence sexual communication. Further understanding of these potential differences is critical to the health promotion messages relayed to the target population. A common health promotion message has been “to know one’s partner,” primarily through talking with one’s partner about his/her sexual history. However, if individuals do not want to know this information about each other and if sexual health communication is not associated with sexual behavior (as the study

findings suggest being the case for men), then how useful are these “health promotion messages”?

Learning more about the potential gender differences from the perspective of dyads may offer more insight to the findings from this study. The significant negative relationship between sexual satisfaction and nonverbal sexual communication and condom use behaviors underscores the importance of sexual satisfaction between couples. A future study with heterosexual couples should address factors that promote sexual satisfaction within the relationship. Such a study may offer more insight about the type of communication that may support sexual satisfaction and how the communication may differ between situations of condom-use and condom-less sex. A better understanding of facilitators of sexual satisfaction in relationships may support health promotion messages that resonate with the target population. In addition, a study with dyads would allow for the study of concordance in couple’s reports of sexual communication and condom use behaviors. The presence or lack of communication concordance may help reveal gender differences in communication that could inform how to positively influence sexual communication among couples.

This proposed study with dyads should also address the factor of relationship duration. Relationship duration in this study was positively associated with sexual health communication; also focus group participants reported not engaging in sexual health communication until later in their relationships. Future research on sexual communication within dyads should categorize couples by relationship duration as well as include a longitudinal

design. Given that the ideal is for young adults to engage in such conversation prior to sexual activity, understanding how sexual communication is realized based on relationship duration may offer insight on how sexual health communication can best be promoted early in a relationship.

In addition to relationship duration, the concept of relationship power should be further explored. In this study the individual's perceived power in their relationships, age difference, and time difference in the United States were used to operationalize relationship power. However, there may have been other potential aspects of relationship power that supported the sexual health and nonverbal sexual communication. Exploration of more interdependent relationship factors such as breadwinner status, resource benefits from the relationship, and endorsement of being submissive to one's partner, may inform understanding of how men and women realize power within their relationships.

Findings from this study may also be used to inform intervention studies for individuals in relationships. Results from this study highlighted the significance of intrapersonal factors on sexual communication. Working with young adults to increase their awareness and understanding of the intrapersonal factors that influence their sexual communication may be beneficial. However, given the influence of relationship power dynamics and affective attachment, addressing these intrapersonal factors with couples may also be useful for sexual communication and sexual behavior within the relationship. A future study with sexual partner dyads may reveal more about factors to consider regarding sexual communication and sexual behavior.

Proposed health promotion messages should also support positive attitudes about sexual communication. The importance of intrapersonal variables on sexual communication was revealed in this study. Future studies should explore how health care providers can positively influence attitudes of young adult Latinos about sexual communication. Findings from such a study may justify testing the feasibility of offering couple-focused workshops that address sexual communication and contraceptive methods.

The use of contraceptives was not explained by any sexual communication. In a sample in which participants were not planning to become pregnant, only 57.7% reported using birth control, and condom use was inconsistent. Given the health and economic costs associated with unplanned pregnancies, further studies are warranted to increase understanding of motivating factors for contraception use. This dataset could be used for a preliminary study examining whether social and interpersonal constructs influence use of contraceptives.

Finally, the constructs of socioeconomic status and stress, relationship power, sexual gender norms, and affective attachment in reality do not exist in isolation. It is likely that these constructs have some interaction with each other to influence intrapersonal variables, sexual communication, and ultimately sexual behavior. This study did not explore the possible relationships between the social and interpersonal constructs, nor were potential interaction effects on sexual communication explored. Future studies should evaluate how these constructs work together to influence intrapersonal variables about sexual communication,

sexual communication, and sexual behavior. Findings from such a future study can provide an informative overview of sexual communication within couples.

Implications for Practice

Nurses and other primary care providers are trusted healthcare professionals with the unique opportunity to help encourage healthy sexual behavior among the sexually active young adult clientele. Among sexually active adults, evaluation of one's sexual risk behavior is a recommended part of a provider's routine annual health assessment. Based on the client's needs, a provider often recommends preventative measures against STIs, HIV, and unplanned pregnancy, such as encouraging birth control, condom use with birth control, offering the HPV vaccine (if age appropriate) and avoiding multiple partners. However, results from this study highlight the importance of sexual satisfaction. Therefore, providers may want to consider including matters of sexual pleasure in the discussion about sexual health and make recommendations based on both the client's preventative health needs and desires.

Sex is a sensitive topic for many people, which may challenge important initial client-provider discussions about sexual pleasure. An approach to this barrier may include first asking clients about their preferences and concerns about contraception. In the event that the client does not address sexual satisfaction, the provider may then mention the issue as a common concern. Another potential option would be for nurses or other health providers to host family planning workshops and introduce matters of sexual satisfaction amidst

other factors to consider with family planning. In order to promote sexual communication between couples, these workshops could be designed to facilitate couple participation.

The Institute of Medicine (IOM, 2011) recently made recommendations for expanding clinical preventative services for women, which include, among others, counseling sexually active women on sexually transmitted infections, HIV, and making available to women of reproductive age the spectrum of birth control options approved by the food and drug administration. Therefore, addressing matters of sexual pleasure would be a way to acknowledge what is important for the client and then integrate the recommended counseling. A recommendation to a client that does not resonate with her needs is unlikely to result in sustainable sexual health behavior. This patient-centered care has also been supported by the IOM (2001) and considered a key component of quality care. Patient-centered care is a suggested facilitator of communication between the patient and provider that promotes patient expression of relevant information about his/her condition (Paget et al., 2011). The exchange between patient and provider informs the patient's plan of care and positively influences health outcomes.

The IOM also addressed the need to increase preventative services to younger men. Young men in their respective communities may best inform how to increase preventative services for younger men. Men's sexual health is as critical as women's sexual health and warrants the same degree of attention. Sexually active men should also be routinely counseled on STI and HIV

prevention and (when applicable) informed about contraceptive methods his partner may potentially use.

Stated previously, the long-term goal for this program of research is to decrease sexual risk behaviors and the unintended consequences of unprotected sex among young adult Latinos. The research and clinical implications discussed suggest that this long-term goal may be attainable. Knowledge gained from further research with young adult Latinos can support best practices regarding patient-centered communication, which in turn may positively influence sexual communication between partners and ultimately safer sex.

Conclusions

The purpose of this study was to examine the influence of socioeconomic status and stress, relationship power, sexual gender norm stereotypes, and affective attachments on attitudes and subjective norms about sexual communication, and sexual communication; to examine the relationship between sexual communication and sexual behavior; and examine the gender differences in these relationships. This study addressed gaps in the literature with results that reveal how different aspects of sexual communication among young adult heterosexual Latinos have different effects on sexual behavior.

This study serves as a preliminary step towards future research on heterosexual dyads that will evaluate how the constructs of socioeconomic status and stress, relationship power, sexual gender norm stereotypes, and affective attachments work together and through intrapersonal and sexual communication to influence sexual behavior. Further understanding of how these factors work in

men and women will facilitate the development of interventions that will best meet the sexual needs and interests of the young adult Latino population, and, just as importantly, increase safer sexual behavior and decrease the unintended negative consequences of sex.

Appendices

Appendix A

Research Survey

Thank you for taking time to complete this questionnaire. Your responses are making a very important contribution to the community.

1. Are you male or female?

Male	Female
(1)	(2)

2. How old are you? (Please write your age)

3. How old is your partner? (Please write his/her age)

4. What is your relationship status?

Married	Living together	Live separate from my partner
(1)	(2)	(3)

5. Is your partner Latino?

(0) No (1) Yes

6. How long have you been with your partner? (Please write your answer)

____ (Years) _____ (months)

7. Do you have children?

No	Yes	If YES how many?
(0)	(1)	_____

8. Where were you born?

Mexico	Puerto Rico	Cuba	Dominican Republic	United States	Central or South America
(1)	(2)	(3)	(4)	(5)	Country _____

9. How long have you lived in the United States? (Please write your answer)

____ (Years) _____ (months)

10. How long has <u>YOUR PARTNER</u> lived in the United States? (Please write your answer)

____ (Years) _____ (months)

11. How far have you gone with school?

No School	8th Grade or less	Some High School	High School Graduate	Some College	College Graduate	Post Graduate
(1)	(2)	(3)	(4)	(5)	(6)	(7)

12. Do you have a job?

No	Yes, but it depends on the time of year	Yes	If YES, what do you do for work?
(0)	(1)	(2)	_____

For ALL of the following questions, please mark an "X" in the box. Please choose ONLY ONE answer.
Example.

1.	**How many fingers do you have?**				
	Ten	Three	Six	Two	One
	(1)	(2)	(3)	(4)	(5)

Section A. The following questions are about the language you speak the most. Please circle the response that bests shows how you feel about the statement

A1. In general, what language(s) do you speak?

Only Spanish	Spanish better than English	Both Equally	English better than Spanish	Only English
(1)	(2)	(3)	(4)	(5)

A2. In general, what language(s) do you read?

Only Spanish	Spanish better than English	Both Equally	English better than Spanish	Only English
(1)	(2)	(3)	(4)	(5)

A3. What was the language(s) you spoke as a child?

Only Spanish	Spanish better than English	Both Equally	English better than Spanish	Only English
(1)	(2)	(3)	(4)	(5)

A4. What language(s) do you usually speak at home?

Only Spanish	Spanish better than English	Both Equally	English better than Spanish	Only English
(1)	(2)	(3)	(4)	(5)

A5. In which language(s) do you usually think?

Only Spanish	Spanish better than English	Both Equally	English better than Spanish	Only English
(1)	(2)	(3)	(4)	(5)

A6. What language(s) do you usually speak to your friends?

Only Spanish	Spanish better than English	Both Equally	English better than Spanish	Only English
(1)	(2)	(3)	(4)	(5)

<u>Section B</u>. The following questions are about problems you may face because you are Latino/a
Please circle the response that bests shows how you feel about the statement.

B1. Because I'm Latino/a, I'm expected to work harder

Circle your response:
1) NO
2) YES

If you answered Yes, how worried or upset did this make you feel?	Not Worried or Upset at all	A little worried or upset	Very worried or upset	Extremely worried or upset
	(1)	(2)	(3)	(4)

B2. Because I'm Latino/a, I have had a hard time finding the work that I want

Circle your response:
1) NO
2) YES

If you answered Yes, how worried or upset did this make you feel?	Not Worried or Upset at all	A little worried or upset	Very worried or upset	Extremely worried or upset
	(1)	(2)	(3)	(4)

B3. I have felt forced to accept jobs for low pay
Circle your response:
1) NO
2) YES

If you answered Yes, how worried or upset did this make you feel?	Not Worried or Upset at all	A little worried or upset	Very worried or upset	Extremely worried or upset
	(1)	(2)	(3)	(4)

B4. My income is not enough to take care of my family or myself

Circle your response:
1) NO
2) YES

If you answered Yes, how worried or upset did this make you feel?	Not Worried or Upset at all	A little worried or upset	Very worried or upset	Extremely worried or upset
	(1)	(2)	(3)	(4)

B5. Because I'm Latino, I have found it hard to get a promotion/raise

Circle your response:
1) NO
2) YES

If you answered Yes, how worried or upset did this make you feel?	Not Worried or Upset at all	A little worried or upset	Very worried or upset	Extremely worried or upset
	(1)	(2)	(3)	(4)

B6. I fear what may happen if I get sent back home
Circle your response:
1) NO
2) YES

If you answered Yes, how worried or upset did this make you feel?	Not Worried or Upset at all	A little worried or upset	Very worried or upset	Extremely worried or upset
	(1)	(2)	(3)	(4)

B7. Because of money problems, I have had to work away from my family

Circle your response:
1) NO
2) YES

If you answered Yes, how worried or upset did this make you feel?	Not Worried or Upset at all	A little worried or upset	Very worried or upset	Extremely worried or upset
	(1)	(2)	(3)	(4)

B8. My citizenship/ residency status has made it hard for me to get a good paying job

Circle your response:

1) NO
2) YES

If you answered Yes, how worried or upset did this make you feel?	Not Worried or Upset at all	A little worried or upset	Very worried or upset	Extremely worried or upset
	(1)	(2)	(3)	(4)

<u>Section C.</u> The following questions are about how you may feel talking to your partner about sex.
Please circle the response that bests shows how you feel about the statement.

C1. Asking my partner if he/she has ever had a sexually transmitted infection is...

A very bad idea	A bad Idea	Not a bad or good Idea	A good Idea	A very good idea
(1)	(2)	(3)	(4)	(5)

C2. Talking to my partner about what he/she likes or dislikes sexually is...

A very bad idea	A bad Idea	Not a bad or good Idea	A good Idea	A very good idea
(1)	(2)	(3)	(4)	(5)

C3. Talking to my partner about what I like or dislike sexually is…

A very bad idea	A bad Idea	Not a bad or good Idea	A good Idea	A very good idea
(1)	(2)	(3)	(4)	(5)

C4. Asking my partner how many people he/she has had sex with is…

A very bad idea	A bad Idea	Not a bad or good Idea	A good Idea	A very good idea
(1)	(2)	(3)	(4)	(5)

C5. Asking my partner if he/she has ever been tested for HIV is…

A very bad idea	A bad Idea	Not a bad or good Idea	A good Idea	A very good idea
(1)	(2)	(3)	(4)	(5)

C6. Talking my partner about using condoms is…

A very bad idea	A bad Idea	Not a bad or good Idea	A good Idea	A very good idea
(1)	(2)	(3)	(4)	(5)

C7. Talking to my partner about using other ways to prevent pregnancy is…

A very bad idea	A bad Idea	Not a bad or good Idea	A good Idea	A very good idea
(1)	(2)	(3)	(4)	(5)

C8. Showing my partner what feels good to me during sex is…

A very bad idea	A bad Idea	Not a bad or good Idea	A good Idea	A very good idea
(1)	(2)	(3)	(4)	(5)

C9. Touching my partner to let him/her know I want to have sex is …

A very bad idea	A bad Idea	Not a bad or good Idea	A good Idea	A very good idea
(1)	(2)	(3)	(4)	(5)

C10. If I were to talk to my partner about sex it would be disrespectful

Completely Disagree	Disagree	Neither Agree or Disagree	Agree	Completely Agree
(1)	(2)	(3)	(4)	(5)

C11. If I talk to my partner about sex I will feel embarrassed

Completely Disagree	Disagree	Neither Agree or Disagree	Agree	Completely Agree
(1)	(2)	(3)	(4)	(5)

C12. I would not tell my partner how many people I've had sex with because it's none of my partner's business

Completely Disagree	Disagree	Neither Agree or Disagree	Agree	Completely Agree
(1)	(2)	(3)	(4)	(5)

<u>Section D.</u> The following questions are about how you think your partner, family, and friends would feel about you talking to your partner about sex.
Please circle the response that bests shows how you feel about the statement.

<u>Would your partner approve or disapprove of you …</u>

D1. Talking to him/her about how many partners he/she has had in the past?

Completely Disapprove	Disapprove	Neither Disapprove or Approve	Approve	Completely Approve
(1)	(2)	(3)	(4)	(5)

D2. Talking to him/her about whether he/she has ever been tested of HIV?

Completely Disapprove	Disapprove	Neither Disapprove or Approve	Approve	Completely Approve
(1)	(2)	(3)	(4)	(5)

D3. Talking to him/her about whether he/she has ever had a sexually transmitted infection?

Completely Disapprove	Disapprove	Neither Disapprove or Approve	Approve	Completely Approve
(1)	(2)	(3)	(4)	(5)

D4. Talking to him/her about how you can make sex more enjoyable?

Completely Disapprove	Disapprove	Neither Disapprove or Approve	Approve	Completely Approve
(1)	(2)	(3)	(4)	(5)

D5. Showing him/her what pleases you during sex?

Completely Disapprove	Disapprove	Neither Disapprove or Approve	Approve	Completely Approve
(1)	(2)	(3)	(4)	(5)

D6. Talking to him/her about whether or not to use condoms?

Completely Disapprove	Disapprove	Neither Disapprove or Approve	Approve	Completely Approve
(1)	(2)	(3)	(4)	(5)

(5)

D7. *People that are important to me think that it is* disrespectful to talk to your sexual partner about sex

Completely Disagree	Disagree	Neither Agree or Disagree	Agree	Completely Agree
(1)	(2)	(3)	(4)	(5)

D8. *People that are important to me think that* I should talk to my partner about how many people he/she has had sex with before we have sex

Completely Disagree	Disagree	Neither Agree or Disagree	Agree	Completely Agree
(1)	(2)	(3)	(4)	(5)

D9. *People that are important to me think that* I should talk to my partner about using condoms before we have sex

Completely Disagree	Disagree	Neither Agree or Disagree	Agree	Completely Agree
(1)	(2)	(3)	(4)	(5)

D10. *People that are important to me think that* I should talk to my partner about whether he/she has ever been tested for HIV

Completely Disagree	Disagree	Neither Agree or Disagree	Agree	Completely Agree
(1)	(2)	(3)	(4)	(5)

D11. *People that are important to me think that* I should talk to my partner about whether he/she has ever had a sexually transmitted infection

Completely Disagree	Disagree	Neither Agree or Disagree	Agree	Completely Agree
(1)	(2)	(3)	(4)	(5)

D12. *People that are important to me think that* I should talk to my partner about how to make sex pleasurable in our relationship

Completely Disagree	Disagree	Neither Agree or Disagree	Agree	Completely Agree
(1)	(2)	(3)	(4)	(5)

D13. *People that are important to me think that* I should not talk about sex until after I'm living with or married to my partner

Completely Disagree	Disagree	Neither Agree or Disagree	Agree	Completely Agree
(1)	(2)	(3)	(4)	(5)

D14. ***Partner, people that are important to me think that*** **I should show my partner what I like during sex**

Completely Disagree	Disagree	Neither Agree or Disagree	Agree	Completely Agree
(1)	(2)	(3)	(4)	(5)

D15. ***People that are important to me think that*** **I should show my partner when I am sexual satisfied**

Completely Disagree	Disagree	Neither Agree or Disagree	Agree	Completely Agree
(1)	(2)	(3)	(4)	(5)

<u>Section E.</u> The following questions are about how often you share feelings about sex with your partner.
Please circle the response that bests shows how you feel about the statement.

E1. ***How often do you talk to your partner about*** **the sexual positions you prefer**

Never	Only had to talk about it once	Rarely	Sometimes	Always
(0)	(1)	(2)	(3)	(4)

E2. ***How often do you talk to your partner about*** **what feels good to you during sex**

Never	Only had to talk about it once	Rarely	Sometimes	Always
(0)	(1)	(2)	(3)	(4)

E3. ***How often do you talk to your partner about*** **your sexual fantasies (such as having a one-night stand with a celebrity you find attractive)**

Never	Only had to talk about it once	Rarely	Sometimes	Always
(0)	(1)	(2)	(3)	(4)

E4. ***How often do you talk to your partner about*** **whether to use a condom**

Never	Only had to talk about it once	Rarely	Sometimes	Always
(0)	(1)	(2)	(3)	(4)

E5. *How often do you talk to your partner about* oral sex (mouth on the vagina, or penis in the mouth)

Never	Only had to talk about it once	Rarely	Sometimes	Always
(0)	(1)	(2)	(3)	(4)

E6. *How often do you talk to your partner about* what you would do about a pregnancy

Never	Only had to talk about it once	Rarely	Sometimes	Always
(0)	(1)	(2)	(3)	(4)

E7. *How often do you talk to your partner about* what you do not like during sex

Never	Only had to talk about it once	Rarely	Sometimes	Always
(0)	(1)	(2)	(3)	(4)

E8. *How often do you talk to your partner about r*isk of sexually transmitted infections and/or HIV

Never	Only had to talk about it once	Rarely	Sometimes	Always
(0)	(1)	(2)	(3)	(4)

<u>Section F.</u> The follow questions are about how you show your partner how you feel about sex.
Please circle the response that bests shows how you feel about the statement.

F1.I am afraid to show my partner what makes me feel good during sex

Rarely	Sometimes	Almost All the time	Always
(1)	(2)	(3)	(4)

F2. I feel free to show my partner what is a sexual turn-on for me

Rarely	Sometimes	Almost All the time	Always
(1)	(2)	(3)	(4)

F3. I show my partner what pleases me during sex

Rarely	Sometimes	Almost All the time	Always
(1)	(2)	(3)	(4)

F4. My partner shows me when she/he is sexually satisfied

Rarely	Sometimes	Almost All the time	Always
(1)	(2)	(3)	(4)

F5. My partner shows me things she/he finds pleasing during sex

Rarely	Sometimes	Almost All the time	Always
(1)	(2)	(3)	(4)

F6. I show my partner when I am sexually satisfied

Rarely	Sometimes	Almost All the time	Always
(1)	(2)	(3)	(4)

F7. My partner shows me by the way she/he touches me during sex if he/she likes it

Rarely	Sometimes	Almost All the time	Always
(1)	(2)	(3)	(4)

F8. I do things to show my partner when I want sex

Rarely	Sometimes	Almost All the time	Always
(1)	(2)	(3)	(4)

F9. I know when my partner is ready to have sex by the way he/she touches me

Rarely	Sometimes	Almost All the time	Always
(1)	(2)	(3)	(4)

<u>Section G.</u> The following questions are about how you feel about your relationship
Please circle the response that bests shows how you feel about the statement.

G1. How likely is it that your relationship will be forever? (You will never break up with your partner)

Not at all	A little	Somewhat	A lot	Very Much
(1)	(2)	(3)	(4)	(5)

G2. How attracted are you to other men (if you are a woman) or women (if you are a man)?

Not at all	A little	Somewhat	A lot	Very Much
(1)	(2)	(3)	(4)	(5)

G3. How likely is it that you and your partner will be together six months from now?

Not at all	A little	Somewhat	A lot	Very Much
(1)	(2)	(3)	(4)	(5)

G4. How much trouble would it be to end your current relationship?

Not at all	A little	Somewhat	A lot	Very Much
(1)	(2)	(3)	(4)	(5)

G5. How attractive would another person have to be for you to try and start a new relationship with him/her?

Not at all	A little	Somewhat	A lot	Very Much
(1)	(2)	(3)	(4)	(5)

G6. How likely are you to look for another relationship or to be single in the future?

Not at all	A little	Somewhat	A lot	Very Much
(1)	(2)	(3)	(4)	(5)

G7. How much do you feel like you have to continue this relationship?

Not at all	A little	Somewhat	A lot	Very Much
(1)	(2)	(3)	(4)	(5)

G8. In your opinion, how committed is your partner to this relationship?

Not at all	A little	Somewhat	A lot	Very Much
(1)	(2)	(3)	(4)	(5)

G9. In your opinion, how likely is your partner to continue this relationship?

Not at all	A little	Somewhat	A lot	Very Much
(1)	(2)	(3)	(4)	(5)

<u>Section H.</u> The following questions are questions are about the decisions that are made in your relationship.
Please circle the response that bests shows how you feel about the statement.

H1. If I asked my partner to use a condom, he/she would get upset

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)	(5)

H2. If I asked my partner to use a condom, he/she would get angry

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)	(5)

H3. Most of the time, we do what my partner wants to do

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)	(5)

H4. My partner will not let me wear certain clothes.

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)	(5)

H5. When my partner and I are together, I'm pretty quiet

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)	(5)

H6. My partner has more say than I do about important issues in our lives (i.e. how we spend money)

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)	(5)

H7. My partner tells me who I can spend time with

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)	(5)

H8. If I asked my partner to use a condom, he/she would think I am having sex with other people

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)	(5)

H9. I feel trapped or stuck in my relationship

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)	(5)

H10. My partner does what he/she wants, even if I do not want him/her to

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)	(5)

H11. I am more committed to our relationship than my partner is

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)	(5)

H12. When my partner and I disagree, he/she gets his/her way most of the time

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)	(5)

H13. My partner gets more out of our relationship than I do

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)	(5)

H14. My partner always wants to know where I am

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)	(5)

H15. My partner might be having sex with someone else

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)	(5)

H16. Who usually decides who you and your partner should hang out with?

Your Partner	Both of you Equally	You
(1)	(2)	(3)

H17. Who usually has more say about whether you have sex?

Your Partner	Both of you Equally	You
(1)	(2)	(3)

H18. Who usually has more say about what you do together?

Your Partner	Both of you Equally	You
(1)	(2)	(3)

H19. Who usually has more say about how often you see one another?

Your Partner	Both of you Equally	You
(1)	(2)	(3)

H20. Who usually has more say about when you talk about serious things?

Your Partner	Both of you Equally	You
(1)	(2)	(3)

H21. In general, who do you think has more power in your relationship?

Your Partner	Both of you Equally	You
(1)	(2)	(3)

H22. Who usually has more say about whether you use condoms?

Your Partner	Both of you Equally	You
(1)	(2)	(3)

H23. Who usually has more say about what types of sexual acts you do?

Your Partner	Both of you Equally	You
(1)	(2)	(3)

<u>Section I.</u> The following questions are about beliefs about men and women and sex.
Please circle the response that bests shows how you feel about the statement

I1.Men only want to have sex that involves the penis going inside the vagina or anus

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)	(5)

I2.Men prefer sex that is not planned

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)	(5)

I3. Women prefer men that are sexually experienced

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)	(5)

I4.If a man gets tired of the sex he has with his partner, it is ok for him to have sex with other people

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)	(5)

I5. Women like for men to take control during sex

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)	(5)

I6. Men should always be ready to have sex

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)	(5)

I7. A woman should always be ready to sexually satisfy a man

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)	(5)

I8. It is harmful to a man if he “gets hard” and does not “come”

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)	(5)

I9. It does not look good for a woman to talk about her sexual desires

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)	(5)

I10. Men can not control their sexual desires

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)	(5)

I11. Men need to have sex more frequently than women do

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)	(5)

I12. For women, sex without the penis going in the vagina or anus is not sex

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)	(5)

I13. A real man, is a man who can get any woman to have sex with him

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)	(5)

I14. Men should be in control during sex

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)	(5)

I15. Women should wait for men to ask for sex

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)	(5)

<u>Section J.</u> The following questions are about how likely you think you are to get a sexually transmitted infection
Please circle the response that bests shows how you feel about the statement

J1. How much do you worry about getting an STI?

None	A little	Quiet A lot	A lot
(1)	(2)	(3)	(4)

J2. What do you think your chances are of getting an STI?

None	A little	Quiet A lot	A lot
(1)	(2)	(3)	(4)

J3. How much do you worry about getting an STI from your partner?

None	A little	Quiet A lot	A lot
(1)	(2)	(3)	(4)

<u>Section K.</u> The following questions are about birth control methods and sexual partners.

K1. How often do you use condoms with your partner?

Never	Sometimes	Always
(1)	(2)	(3)

K2. How often do you use condoms with your other partner(s)?

Never	Sometimes	Always
(1)	(2)	(3)

K3. Did you use a condom the last time you had sex?

Yes	No
(1)	(2)

K4. How many sexual partners do you currently have? _____

K5. Do you or your partner use birth control

(0) No (1) Yes

If Yes, circle the method that you or your partner use

(1) Pills or Patch
(2) Depo-Provera
(3) Intrauterine device (IUD)
(4) Withdrawal
(5) Foam or Gel
(6) Norplant
(8) Nuva Ring
(9) Don't Know

Appendix B

Focus Group Interview Guide

Thank you for agreeing to be part of this group today. My name is Carmen Alvarez I am a nurse and research student at the University of Michigan. I want to learn from you about how Latino men and women who are together talk and share with each other, particularly about sex. This will help nurses and others better know how to help couples talk about issues involving sex and health. This is important so we can help prevent unplanned pregnancies and diseases like STI's and HIV/AIDS.

There will be two parts to our discussion today. First, you will answer these questionnaires and we'll go through the questions. We will not go over your answers. Then we will move into discussions about how couples share information with each other. Please take a few minutes to answer the questions. Please mark questions that you think are unclear so that we can talk about them.

[Participants will be given 20 minutes to answer questions. The moderator will go through each item in the two scales and ask participants their opinions/issues with the items.]

Ok, so now let us go over the questions that you just answered.

What did you think about the questionnaires that you just filled out?

Probes:
Were the questions easy or hard to understand? Why?
Were the questions easy or hard to answer? Why?
What do you think about the time it took you to answer the questions? Was it enough time? Did it take too long?
Anything we didn't ask we should have or anything we did ask we shouldn't have asked?
What would make the questionnaire easier to answer?

Let us now get into the discussion about couples. There are no right or wrong answers. I want your open and honest thoughts and opinions. Everything we talk about today will be completely confidential. I will tell anyone what you said or thought about an issue. To help us say what we want freely, I want to know if others in the room will also promise not to share any details about what we talk about today. Whatever you share today will help us know more about how couples share sexual information.

Sexual Communication Discussion Questions

Part of a relationship includes sharing and talking about feelings, thoughts, opinions, and desires- so in other words we communicate with each other.

1. **Thinking about communicating with a boyfriend, girlfriend, spouse- what are things that are shared?**

    Probes:
    How are they shared? (Ask about non-verbal ways of sharing)
    What are things that are not shared?
    What makes communication comfortable? Example?
    What can make communication uncomfortable? Example?
    What are things that couples share, even if it is uncomfortable?
    Can you recall a scenario?
    What, if any, differences exist between how women and men communicate with each other? Example?

Another part of relationships is intimacy- how close we feel to our partner.

2. **What things do we do to that make us feel more close to our partner?**

    Probes:
    How do we show how close we are with our partner?
    What are things that we do?
    What things do we say?
    What things make us feel special to our partner?
    What things can make us feel not special to our partner?

3. **Many people talk about trust in a relationship. Tell me what trust means.**

    Probes:
    How does someone earn trust? How is trust lost?
    How does one know when a partner can be trusted?
    What is shared when we trust our partner?
    What are things never shared—even if you do trust your partner?

For a lot of people, sex is also part of a relationship. What is your definition of sex?

4. **What information about sex is shared between couples?**

    Probes:
    How do couples share this information about sex? Do words have to be used? Explain.
    When is this information shared?
    What are some reasons to share? Not to share?
    What types of information about sex is shared after a couple becomes sexually active? Example?
    How does the amount of time in a relationship change what is shared?
    What, if any, other things in a relationship affect what is shared (e.g. living together, married, exclusive).
    Can you tell me how what is shared may change from when a couple is dating to when they live together?
    What differences, if any, exist between how men and women share information about sex? Explain.

5. **How do you think sharing sexual information affects a relationship?**

    Probes:
    How can it be helpful to the relationship? Can you give an example or scenario?
    Can you give me a scenario/example of how it may be hurtful? (Ask about how, if at all, it may affect family planning, condoms, if participants don't mention it).

"Now I would like to get your thoughts on what makes sharing sexual information easy or hard."

6. **What, if anything, makes it easy to share sexual information? What, if anything, makes it hard to share sexual information?**

    Probes:
    What things are hard to share?
    What do you think about telling a partner about cheating? What can make sharing this information hard? Is it harder for men or women? Why?
    What about telling a partner about past sexual experiences. What can make this easy? Hard? Is it different for men and women? How?

We all have different ways of trying to get what we want from a relationship or our partner. For example we may want our boy/girlfriend to show more affection, or we may want our spouse to help with the household chores more.

7. **How does a person communicate with his/her partner what he/she wants in the relationship?**

    Probes:
    What, if any, actions are made? What, if anything is said?
    Sometimes we communicate to our partner what we want, but we still don't get what we want. Why do you think this is?
    How can work schedule affect this problem? How can money affect this problem? How can residency or citizenship affect this problem?

    What about in regards to sex. How does a person share with his/her partner the desire to have sex?

    Probes:
    What if anything is done? Who, if at all, starts the action? What, if any is said?
    What about when you don't want to have sex, but your partner does? How do couples deal with this?
    What happens?
    What, if anything is said? How do some women/men avoid having sex?

    How does a person share with his/her partner the desire to avoid getting pregnant?

    Probes:
    What is any is said? What actions are made? Who usually brings up the topic? When, if at all, is the decision made?

    How does a person share with his/her partner the desire to use condoms?

    Probes:
    What is any is said? What actions are made? Who usually brings up the topic? When, if at all, is the decision made?

8. **What advice would you give a friend about sharing sexual information with their partner? Does this advice differ if the friend is the same or different sex as you.**

9. **“Is there anything else you would like to share?”**

Thank you so much for taking the time to share your thoughts and opinions with us today. Please remember that our discussion is to remain confidential among all of us here.

Appendix C

Brief of Focus Group Study

Abstract

Sexual communication between sexual partners is an important component in prevention efforts and has been found to be positively associated with safer sex practices, particularly condom use. The purpose of this study was to describe sexual communication among young adult Latinos. Four, semi-structured, sex-segregated focus groups were used for this qualitative descriptive study. A convenience sample (*N* = 20) of 18-30 year old, self-identified Latinos, who were currently sexually active and in a heterosexual relationship, was recruited from urban areas. For most participants, initial sexual communication with their partners was avoided. This avoidance was related to a lack of interest a partner's sexual history, feeling embarrassed about the topic, and concern for offending one's partner or partner's family. As a result of these beliefs and attitudes, initial sexual communication was non-verbal and focused on sexual pleasure. After sexual activity, and as time in the relationship, trust, and commitment increased, verbal sexual communication expanded to include sexual history. These preliminary findings highlight the influence of affective attachments, attitudes, and subjective norms towards verbal sexual communication. Further exploration of the dynamics of these factors in the context of a romantic relationship and how they may impact sexual behavior should be further explored.

Sexual Communication Among Young Adult Heterosexual Latinos: A Qualitative Descriptive Study

Purpose

The purpose of this qualitative study is to explore what sexual communication entails for young adult heterosexual Latinos and the context in which communication does or does not occur.

Method

A convenience sample of 20 Latinos, ages of 18- 30, participated in the focus groups. Four sex-segregated focus groups - five participants in each group, two sessions were conducted in Spanish and two in English. The University of Michigan and the community clinic institutional review boards approved this qualitative descriptive study - ¡*Háblame!*

Participants were recruited from a health clinic and urban areas in the Midwest. Multiple recruitment strategies were implemented. Potential participants were individually approached at the clinic by the PI, a project website advertised through Facebook and email was created to help advertise the study, in addition, fliers and word of mouth were used. In select areas of the health center and these communities, flyers were posted to elicit potential participants. Participants were eligible for the study if they were 1) 18 – 30

years old, 2) self-identified as Latino, 3) Spanish and/or English speaking, and 4) currently in a sexually active, heterosexual relationship.

In response to the flyers, participants who contacted the primary investigator (PI) were screened for eligibility and invited to participate in the focus groups discussions held at the clinic. In order to accommodate language preference participants were offered the option to participate in an English or Spanish speaking session. Participants were also asked to invite other eligible participants. All participants were informed that they could invite their sexual partner to participate in the focus groups; since the discussions were sex segregated, participants would not be in the same focus group as their sex partner.

Focus group discussions were conducted by the PI and a research assistant from October 2010 to November 2010. The focus groups were conducted at a conference room in a community health clinic, library, and student multicultural center. Sessions were 2- 2½ hours, participants were compensated $20 and food was provided. At the beginning of each session, eligibility was evaluated for individuals who had not been previously screened and informed consent was obtained. Participants were then provided with an explanation of the purpose of the ¡*Háblame!* Project and the focus groups.

Each session started with participants completing a questionnaire about demographics. In addition two sexual communication measures- the Health Protective Sexual Communication Scale (HPSC) (van der Straten, Catania, & Pollack, 1998) and the Dyadic Sexual Communication Scale (Catania, 1998),

which were being piloted for a future study, were also reviewed. The focus group discussion proceeded after review of the questionnaires.

The purpose of the focus groups was to obtain perspectives from young adult Latinos about what sexual communication entails, how one informs his/her partner (verbal vs non-verbal methods), what influences the sexual communication, and the consequences of the communication if any. Therefore the focus group discussion guide addressed topics including: sentiments about general communication with one's partner, trust, and issues regarding communicating with a partner about sex (see Interview guide, Appendix B). The interview guide started with general questions, and then progressed to specific questions. The questions were open-ended to obtain unanticipated thoughts and opinions as well as foster group discussion.

Data Collection

In addition to audio recording each session, the moderator and research assistant took notes during each session. Notes were taken on key themes that emerged for each question, quotes that illustrated relevant points, and ideas that emerged from the PI and moderator during their reflection discussions after the focus group. Following the female focus group sessions, the moderators wrote summaries of the group discussions, their reflections about the sessions, and then verbally debrief about the discussions. The audio recordings were transcribed verbatim by the PI, yielding 79 single spaced pages for of data for analysis.

Sample

Women. Women's' ages ranged from 19-29 (*M* = 24.2, *SD* = 3.9) years old. The length of time in their relationships ranged from 8 months to 11years (*M* = 5.3, *SD* = 3.4 years); four were married, 6 had children, 4 lived apart from their boyfriends and 2 were cohabitating with their partners. Different levels of educational attainment was represented in the group, 2 women had not completed high school, 2 were high school graduates, 5 women had some college education (including 2 women who were currently enrolled in college), and one woman had a college degree. Except for one homemaker, all women were employed and represented a variety of occupations: medical assistant, factory worker, community worker, office clerk, and registered nurse. Length of time participants had been in the United States varied from 7-25 years (*M* =-16.5, *SD* = 6.9 years). Half of the women (*N* = 5) were born in the United States, 4 in Mexico, and 1 in El Salvador. All women lived within the city area. Five women participated in an English speaking focus group and 5 in Spanish speaking group.

Men. Male participants ages ranged from 19- 30 (*M* = 23.9, *SD* = 3.9) years old. Men had been in their relationships from 6 months to 8 years (*M* = 2.1, *SD* = 2.5); the majority of men (*N* = 7) lived apart from their partners, 1 was married, 1 lived with his partner, and 1 participant did not report his relationship status. Only one male reported having a child. Educational attainment varied among the group of men, 3 men had less than a high school education, 4 had some college education, 2 had a college degree, and 1 person did not report their education level. All men were employed except one; the men represented

a variety of occupations- cook, teacher, supervisor (unspecified area), and custodial work. Almost half of the men (*N* = 4) were born in the United States; the other 6 were born in Mexico. Five men participated in the English speaking focus group and 5 in the Spanish-speaking group.

Results

Data from the focus group participants revealed the progression and complexity of sexual communication in a relationship. In the beginning of a relationship sexual communication whether verbal or non-verbal focused on sexual pleasure. Some participants believed that in order to build a sexually satisfying relationship, it was important to share their sexual likes and dislikes with their sexual partner. These discussions about sexual likes and dislikes occurred before, during, and after sex. Regarding nonverbal sexual communication, participants discussed the ways in which they would play with their partners to demonstrate interest in having sex and also how they knew their partners were interested in having sex.

All participants agreed that open communication is critical to a successful relationship; however, communication regarding sex remained a challenging topic to broach, especially at the beginning of a relationship. The following table highlights the common barriers to sexual communication described by the participants.

Table. Perceived Barriers to Sexual Communication

"Don't Want to Know"	"If I'm with her now, it's because I want to be with her….I don't care who she's been with.."
"I'm embarrassed"	"…yes the communication [with my husband] was good but there was that shame and embarrassment….."
"You can just tell"	"…. you don't have to touch the subject to really know what's going on."
Perceived Negative Reaction	"…they [women] get upset if we try to talk about sex.."
Family	"…if as children we wanted to know anything about sex we were punished…."
Machismo	"…. what a woman says and her opinion isn't worth anything."

Despite the multiple barriers to sexual communication participants described several factors that eventually facilitated sexual communication. An increase in comfort, trust, and commitment in the relationship allowed participants to reveal information about their past without fear of being judged. In addition to feeling closer to one's partner, for some participants having sex for

the first time their partner was enough to diminish whatever reservations they had about discussing sex.

Relevant to sexual communication and its relationship with sexual behavior are perspectives about sex, love, and condoms. Sex was defined as, “penis in the vagina” or “penetration.” Sex also included oral sex from the perspective of men, whereas women considered oral sex as “foreplay”. Regarding the meaning of sex, participants reported sex as an act of love and something shared with someone that one trusts and loves.

Findings also revealed that participants, particularly women, considered condoms primarily as a method of birth control. One woman shared, “I’m a control freak so I would never want to rely on a man to wear a condom, so I’d rather use birth control…” None of the women referred to condoms as a method of prevention from sexually transmitted infections (STIs). Men on the other hand, reportedly used condoms for both prevention of pregnancy and STIs.

In summary, these findings reveal how sexual communication may progress in a committed, sexually active relationship. In addition, the relevance of intrapersonal factors (attitudes towards sexual communication and subjective norms) and their influence on sexual communication emerged from the discussions. Finally, the fact that sexual communication may occur after sexual activity and condom-less remains a preferred practice, supports the need to support sexual health promotion activities among young adult Latinos.

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